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AFVAL-TR-86-4006 Volume V Part 6



INTEGRATED INFORMATION
SUPPORT SYSTEM (IISS)
Volume V - Common Data Model Subsystem
Part 6 - MDDL Processor Product Specification
Sections 1.0 through 3.10.8 CPFNXT

General Electric Company Production Resources Consulting One River Road Schenectady, New York 12345

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PREPARED FOR:

MATERIALS LABORATORY AIR FORCE WRIGHT AERONAUTICAL LABORATORIES AIR FORCE SYSTEMS COMMAND WRIGHT-PATTERSON AFB, OH 45433-6533



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This document is the product specification establishing the design implementation of the IISS Configuration Item Meutral Data Definition Language MDDL which is the primary tool used for maintaining the Common Data Model (CDH) data base.					
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Integrated Information Support System (IISS)
Vol V - Common Data Model Subsystem
Part 6 - MDDL Processor Product Specification
Sections 1.0 through 5.10.8 CPFMXT

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#### **PREPACE**

This product specification covers the work performed under Air Force Contract F33615-80-C-5155 (ICAM Project 6201). This contract is sponsored by the Materials Laboratory, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio. It was administered under the technical direction of Mr. Gerald C. Shumaker, ICAM Program Manager, Manufacturing Technology Division, through Project Manager, Mr. David Judson. The Prime Contractor was Production Resources Consulting of the General Electric Company, Schenectady, New York, under the direction of Mr. Alan Rubenstein. The General Electric Project Manager was Mr. Myron Hurlbut of Industrial Automation Systems Department, Albany, New York.

Certain work aimed at improving Test Bed Technology has been performed by other contracts with Project 6201 performing integrating functions. This work consisted of enhancements to Test Bed software and establishment and operation of Test Bed hardware and communications for developers and other users. Documentation relating to the Test Bed from all of these contractors and projects have been integrated under Project 6201 for publication and treatment as an integrated set of documents. The particular contributors to each document are noted on the Report Documentation Page (DD1473). A listing and description of the entire project documentation system and how they are related is contained in document FTR620100001, Project Overview.

The subcontractors and their contributing activities were as follows:

#### TASK 4.2

Subcontractors	Role
Boeing Military Aircraft Company (BMAC)	Reviewer
D. Appleton Company (DACOM)	Responsible for IDEF support, state-of-the-art literature search
General Dynamics/ Ft. Worth	Responsible for factory view function and information

models

Subcontractors

Role

Illinois Institute of Technology

Responsible for factory view function research (IITRI) and information models of small and medium-size business

Morth American Rockwell

Reviewer

Morthrop Corporation

Responsible for factory view function and information models

Pritsker and Associates

Responsible for IDEF2 support

SofTech

Responsible for IDEFO support

## TASKS 4.3 - 4.9 (TEST BED)

Subcontractors

Role

Boeing Military Aircraft Company (BNAC) Responsible for consultation on applications of the technology and on IBM computer technology.

Computer Technology Associates (CTA) Assisted in the areas of communications systems, system design and integration methodology, and design of the Network Transaction Manager.

Control Data Corporation (CDC)

Responsible for the Common Data Hodel (CDM) implementation and part of the CDM design (shared with DACOM).

D. Appleton Company (DACOM)

Responsible for the overall CDM Subystem design integration and test plan, as well as part of the design of the CDM (shared with CDC). DACOM also developed the Integration Methodology and did the schema mappings for the Application Subsystems.

A CONTRACTOR OF THE PROPERTY O

Subcontractors	Role
Digital Equipment Corporation (DEC)	Consulting and support of the performance testing and on DEC software and computer systems operation.
McDonnell Douglas Automation Company (McAuto)	Responsible for the support and enhancements to the Metwork Transaction Manager Subsystem during 1984/1985 period.
On-Line Software International (OSI)	Responsible for programming the Communications Subsystem on the IBM and for consulting on the IBM.
Rath and Strong Systems Products (RSSP) (In 1989 became McCormack & Dodge	the implementation and use of
SofTech, Inc.	Responsible for the design and implementation of the Network Transaction Manager (NTM) in 1981/1984 period.
Software Performance Engineering (SPE)	Responsible for directing the work on performance evaluation and analysis.
Structural Dynamics Research Corporation (SDRC)	Responsible for the User Interface and Virtual Terminal Interface Subsystems.

Other prime contractors under other projects who have contributed to Test Bed Technology, their contributing activities and responsible projects are as follows:

Contractors	ICAM Project	Contributing Activities
Boeing Military Aircraft Company (BMAC)	1701, 2201, 2202	Enhancements for IBM node use. Technology Transfer to Integrated Sheet Metal Center (ISMC)

Contractors	ICAM Project	Contributing Activities
Control Data Corporation (CDC)	1502, 1701	IISS enhancements to Common Data Model Processor (CDMP)
D. Appleton Company (DACOM)	1502	IISS enhancements to Integration Methodology
General Electric	1502	Operation of the Test Bed and communications equipment.
Hughes Aircraft Company (HAC)	1701	Test Bed enhancements
Structural Dynamics Research Corporation (SDRC)	1502, 1701, 1703	IISS enhancements to User Interface/Virtual Terminal Interface (UI/VTI)
Systran	1502	Test Bed enhancements. Operation of Test Bed.

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# **FOREWORD**

This is the first bound segment of four comprising Volume V. Part 6 of the Final Technical Report. It contains Sections 1.0 through 5.10.8 CPFMXT.

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#### SECTION 1

#### SCOPE

## 1.1 Identification

This specification establishes the development, test and qualification requirements of a computer program identified as the \*\*Neutral Data Definition Language Processor\*\* (NDDL Processor). The NDDL Processor is one Configuration Item of the Integrated Information Support System (IISS) Common Data Model (CDM) subsystem.

# 1.2 Functional Summary

The NDDL Processor is a language used to manipulate and populate information in the Common Data Model (CDM) of the IISS CDM database. The language is modelled after SQL and the commands feature a combination of a few simple verbs (operators) along with the necessary parts of the CDM (objects).

The following functions will be performed by the NDDL processor:

- 1. Allow the user to populate and maintain the three schemas of the CDM: An external, conceptual and internal and the mappings between each.
- 2. Provide capabilities for manipulation of many IDEF-1 models and submodels needed during the process of developing a single integrated model of the conceptual schema. Only the integrated model may be mapped to the external and internal schemas.
- 3. Provide the user with three modes of operation:
  - a) Batch mode allows NDDL command files to be executed, and output may be redirected to a user specified file.
  - b) Interactive mode allow the user to enter NDDL commands at the terminal.
  - c) Forms mode allows the user the capability of using the IISS forms processor to display input and output screens of NDDL commands.
- 4. Allow the user to describe and maintain textual

descriptions of all objects in the CDM.

- 5. Define alias names for entities and attributes in the CDM.
- 6. Associate keywords for entities, attributes and relations.
- 7. Provide the user with additional modelling tools to Copy, Merge, Combine, and Compare conceptual entities, attributes and IDEF1 models.

#### SECTION 2

#### **DOCUMENTS**

#### 2.1 Reference Documents

- 1. ICAM Documentation Standards: IDS15012000A, 28 December
- 2. D. Appleton Co., CDM Administrators Manual: UM620141000, March 1984.
- 5. D. Appleton Co., <u>CDM1-IDEF Model</u> of the <u>Common Data Model</u>: <u>CCS620141000</u>, 15 May 1985.
- 4. D. Appleton Co., Computer Program Development
  Specification (DS) for ICAM Integrated Support System
  (IISS) Configuration Item: MDML Precompiler:
  D8620141200, December 1984.
- 5. D. Appleton Co., <u>Embedded MDML Programmer's Reference</u>
  Manual: PRM620141200, March 1965.
- 6. Softech, Inc., MTM Precompilers Guide: UN620140001, July 1984.
- 7. Control Data Corp., Computer Program Development
  Specification (DS) for ICAM Integrated Support System
  (IISS) Configuration Item: MDDL Command Processor:
  DS620141100, June 1985.

#### 2.2 Terms and Abbreviations

Attribute Use Class: (AUC)

<u>C/E Transformer</u>: Conceptual Schema to External Schema Translation or Happing program.

Conceptual Schema: (CS)

Common Data Model Processor: (CDMP)

<u>Common Data Model</u>: (CDM) Describes common data application process formats, form definitions, etc, of the IISS and includes conceptual schema, external, internal schemas, and schema transformation operators.

Data Field: (DF) An element of data in the external schema. It is by this name that an NDML programmer references data.

Database Management System: (DBMS)

<u>Distributed Request Supervisor</u>: (DRS) This IISS CDM subsystem configuration item controls the execution of distributed MDML queries and non distributed updates.

Domain: A logical definition of legal attribute class values.

Domain Constraint: Predicate that applies to a single domain.

External Schema: (ES)

Forms: Structured views which may be imposed on windows or other forms. A form is composed of fields where each field is a form, item, or window.

<u>Forms Processor</u>: (PP) A set of callable execution time routines available to an application program for form processing.

Internal Schema: (IS)

ICAM Definition: (IDEF1)

Integrated Information Support System: (IISS) A test computing environment used to investigate, demonstrate and test the concepts of information management and information integration in the context of Aerospace Manufacturing. The IISS addresses the problems of integration of data resident on heterogeneous databases supported by heterogeneous computers interconnected via a local Area Metwork.

Mapping: The correspondence of independent objects in two schemas: ES to CS or CS to IS.

<u>Metwork Transaction Manager</u>: (NTM) Performs the coordination, communication and housekeeping functions required to integrate the application processes and system services resident on the various hosts into a cohesive system.

<u>Meutral Data Manipulation Language</u>: (MDML) A language developed by the IISS project to provide uniform access to common data, regardless of database manager or distribution criteria. It provides distributed retrieved and single node updates.

ORACLE: Relational DBMS based on the SQL (Structured Query Language, a product of ORACLE Corp, Menlo Park, CA). The CDM is an ORACLE database.

<u>Parcel</u>: A sequential file containing sections source code of the input application program.

Request Processor: (RP) A COBOL program that will satisfy a retrieval or update MDML subtransaction against a particular Database Management System.

<u>User Interface</u>: (UI) Controls the user's terminal and interfaces with the rest of the system.

Virtual Terminal Interface: (VTI) Performs the interfacing between different terminals and the UI. This is done by defining a specific set of terminal features and protocols which must be supported by UI software which constitutes the Virtual Terminal Definition. Specific terminals are then mapped against the Virtual Terminal software by specific software modules written for each type of real terminal supported.

#### SECTION 3

#### REQUIREMENTS

# 3.1 Structural Description

The graphic portrayal of this CPCI is included in Section 5.10. This chart shows the hierarchical relationship of each module making up this CPCI.

This CPCI uses many lower level modules to handle the following operations:

- 1. Initialize with NTM, forms processor, ORACLE DBMS, and other global variables and data structures.
- 2. Execute the commands sequentially in the order presented by the user.
- 3. Parse each command for syntactic correctness, using UNIX tools YACC and LEX
- 4. Transfer control to individual command processors for sematic validation of each command.
- 5. Access the CDM database to retrieve information.
- 6. MODIFY, INSERT or DELETE rows of CDM tables whenever information has to be updated.
- 7. Provide a single standard means of communicating errors to the NDDL user. Error handling allows the database transactions to be committed or rolled back.

#### 3.2 Functional Flow

This CPCI implemented the logic defined in the Development Specification for this CPCI. Details of inputs/outputs and relationships between modules are found in Section 3.10.

This CPCI has been designated to operate in a batch or interactive mode and forms mode. It must operate in the system environment established for IISS; that is, the Network Transaction Manager and UI/VTI. It currently can only be executed on the DEC VAX due to the dependence on the VAX Sort. This can be changed for execution on the IBM.

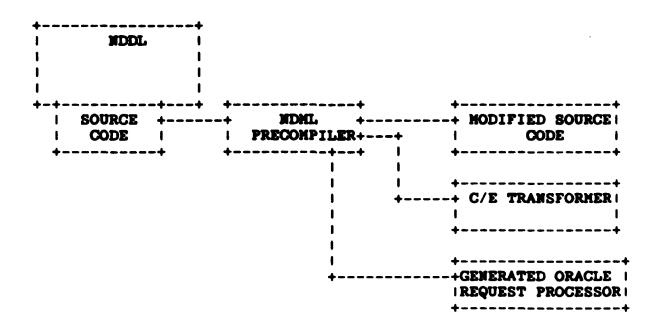
## 3.3 Interfaces

The NDDL processor makes use of the IISS Forms Processor directly for forms interactive input and output. MDDL also make use of the standard "C" input/output library to allow the user for interactive input or batch input via file redirection database access is through a combination of:

- a) ORACLE for recursive searches not supported by MDML and a few update routines.
- b) NDML for searches and a few update routines.

MDML routines are precompiled by the IISS MDML precompiler and ORACLE request processors are generated which communicates with MDDL through the DRS which uses IISS MTM services.

#### Precompile Interfaces



#### Runtime Interfaces

	+	MDOL 1	PROCESSOR	<b>)</b>	
"C"			C/E TRANSFORMS		
	++ 	++ 		<b>+</b>	
ı	1	1		++	+1 1
+	-+ I	ı		1 117	M ++ I
BATCH IMPUT/	1 1	1		1	1 1
OUTPUT	1 1	ł		+	+ 1
<b>+</b>	-+ I	ı			1
	1	ı			ŀ
+	++	1			ı
! INTE	RACTIVE	1			1
	T/OUTPUT	1	<b>+</b> -		+ 1
•	1	+	+ CDM	DATA	BASE +-+
+	+		1		1
			+		+

# 3.3.1 Inputs/Outputs

Input to components of the MDDL processor is done in an invisible manner without respect to the means in which the input was obtained. Output from the MDDL processor to the user is provided through a standard interface to allow for the same invisibility.

INPUT OUTPUT

#### 3.4 Program Interrupts

Not applicable to this CPCI.

#### 3.5 Timing and Sequencing Description

Not applicable to this CPCI.

#### 3.6 Special Control Features

When MDDL is activated, at the "args": prompt, entering a

-I will display an NDDL form to enable the user to execute NDDL commands.

## 3.7 Storage Allocation

#### 3.7.1 Database Definition

The database used by this CPCI is the Common Data Model (CDM) database. The model is defined by the CDM1, the IDEF1 model of the CDM, Reference Document Number 5.

## 3.7.1.1 File Description

We permanent files have been defined for this CPCI. It may use temporary scratch files for such things as input and results.

# 3.7.1.2 Table Description

All tables used by this CPCI have been defined by the Development Specification for this CPCI.

# 3.7.1.3 Item Description

Not applicable to this CPCI.

#### 3.8 Object Code Creation

The object code for this CPCI will be created by the system integration team using defined IISS Software Configuration Management procedures. This CPCI will use the COBOL and "C" language compilers. This CPCI will use the COBOL and "C" language compilers.

#### 3.9 Adaptation Data

This CPCI has been using ANSI COBOL and "C" languages. The intent was to provide a transportable system. Any system environment supporting these languages, a virtual memory management and UI/VTI schema, the COMM and WTM subsystems of IISS and the ORACLE Database Management System should be able to support this CPCI. Every possible attempt has been made to localize and identify any machine or environment dependent modules through the original design of the IISS and application of Configuration Management Procedures.

# 3.10 Detail Design Description

The following sections have been computer generated for this CPCI.

#### 3.10.1 Main Program List

The following is a list of all "Main Programs" which are modules that are not called by any other module being documented here. These modules are either program entry points or, if they are hooked into another set of programs via subroutine calls, they are the points the external programs can call and therefore enter through. To differentiate between the two types of entry points, look at the individual Module Documentation (section 5.10.8) and look at Module Type for each of the Main Program modules listed. Note whether the routine is a Program, Subroutine, or Function. If it is a Program, it is truly a main program entry point. If not, then it is merely called by other programs not being documented here.

#### MDDL COMMAND PROCESSOR Main Program List

Module Name Purpose

DELDFL1 DELETE A RECORD FROM DATA\_FIELD ENITY

WDDL/MAIN MAIN PROGRAM FOR THE WDDL COMMAND

**PROCESSOR** 

YYWRAP \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

# 3.10.2 Module List

The following is a list of all the modules being documented here along with their purpose. Each module has a unique name, no matter what language it was written in.

# WDDL COMMAND PROCESSOR Module List

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Module Name	Purpose
ADDATT	ASSOCIATES EXISTING ATT WITH ENTITY IN CREAT ENTITY COMMAND
ADDDT	PROGRAM MAME
ADDEC	ADD THE ENTITY WAME TO THE TREE LIST STRUCTURE
ADDECMM	ADD THE EC_NAME AND EC_NO INTO KEYLIST
ADDKC	CONTROLS PROCESS FOR KEY CLASS CLAUSE FOR CREATE/ALTER ENTITY
ADDKCLS	ADD KEY INFO TO THE UNBOUNDED KEY_CLASS_LIST STRUCTURE
ADDKG	ADD KCH_TAG NUMBER AND NAME TO STRUCTURE
ADDKH	ADDS SINGLE KEY CLASS MEMBER(AUC) TO KEY CLASS FOR ADD KEY
ADDKW	ADDS KEYWORDS FOR COMMANDS USING "ADD KEYWORD" (OPTIONAL)
ADDKAV	INSERT AN ATTRIBUTE KEYWORD
ADDKWE	INSERT AN ENTITY KEYWORD
ADDKWR	INSERT A RELATION KEYWORD
ADDHAP	ADD A CS-IS MAPPING
ADDHIG	PROCESS THE ADD MIGRATESSETCLAUSE
ADDICORR	ADD A TOKEN TO A CORRESPONDING LISTS NEXT ENTRY
ADDNSTD	ADDS A USER DEFINED DATA TYPE
ADDOAC	ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND AS

ATT USE CLASS

#### NDDL COMMAND PROCESSOR Module List

Module Name Purpose

ADDPARM WRITES 80 CHAR MDDL COMMAND WITH

PARAMENTERS CHECKS/DELIMITER

ADDRCEC POPULATES THE RC-DEPKC TABLE FOR ALL

RELATIONS IN THE MODEL

ADDRNUM ADD A AVAILABLE NO OF A POOL NO BACK TO NO

LINKED

ADDSTD PROGRAM NAME

ADDIXT THIS ROUTINE WRITES 80 CHARACTERS OF

DESCRIPTIVE TEXT

ADD CORR ADD A TOKEN TO CORRESPONDING LIST

ADD TO CHT INCREMENT A LIST COUNTER

ADD TO LST ADD A SINGLE TOKEN TO A PARSER OUTPUT LIST

ADPARM1 CREATES 80 CAHR NDDL COMMANDS WITH

PARAMETERS AND DELIMITERS

AKCROW THIS ROUTINE ADDS A ROW TO THE UNBOUNDED

KEY CLASS LIST

ALLATT SELECT ALL THE ATTRIBUTES IN FROM-MODEL

AND GENERATE

ALLENT SELECT ALL THE ATTRIBUTES IN FROM-MODEL

AND GENERATE

ALLKEY GENERATES KEY CLASS FOR AN ENTITY

ALLREL FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

GENERATE

ALLVIEW CREATE AN ES-CS-MAPPING FOR AUC TO DATA

ITEM

# NDDL COMMAND PROCESSOR Module List

Module Name	Purpose
ALTALI	CONTROLS ALTER ALIAS PROCESSING (ALIAS TO PRIM OR VICE VERSA)
ALTATT	THE ALTER ATTRIBUTE COMMAND PROCESSOR ALTERS
ALTCARD	PROCESS CARDINALITY FO USER SPECIFIED RELATION
ALTDOM	PROGRAM NAME
ALTDT	PROGRAM NAME
ALTENT	CONTROL PROCESSING FOR ALTER ENTITY CLASS COMMAND.
ALTHAP	ALTER MAP COMMAND PROCESSOR
ALTMOD	CONTROLS PROCESSING FOR ALTER MODEL COMMANDS
ALTREL	CONTROLS PROCESSING LOGIC FOR THE ALTER RELATION COMMAND
ALTSMAP	ALTER A SINGLE MAP
ATTKW	CONTROLS PROCESSING TO POPULATE KEYWORD TABLE FOR AUC KEYWORD
BLDATT	CREATE ATT CLASS AND ATT NAME FOR A MODEL(CREATE/COPY ATT)
BLDATT1	CREATES ATT CLASS AND ATT NAME FOR A MODEL(CREATE/COPY ATT)
BLECLST	THIS ROUTINE CREATES A ROW IN THE UNBOUNDED EC_LIST
BLKCL1	STORE ALL KEY CLASS INFO FOR AN ENTITY IN A LIST

# NDDL COMMAND PROCESSOR Module List

Module Name	Purpose
BLKCLST	SELECT AND STORE KEY CLASS INFO FOR A GIVEN ENTITY
BLOOPCK	CHECK FOR LOOPS FROM THE ENTITY GIVEN UP THE HIERARCHY
BLRCKC	FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND
BLRCKC1	FOR EACH LEVEL OF RELATIONS IN STRUCTURE
BLSECRC	CONTROLS PROCESS TO BUILD SEC-RC COMPONENTS
BLVVLST	CREATE BUILD VIEW LISTS FOR THE CREATE VIEW COMMAND
BRANCHR	PERFORMS MULTI-WAY CALL TO THE
CDP4A	VERIFY SURROGATE ENTITY CLASS STRUCTURE
CERELS	GENERATES MDDL COMMANDS ON A FILE FOR ALL ENTITIES IN A RELATION.
CESTRUC	GENERATES HOOL COMMANDS ON A FILE FOR ALL ENTITIES FOR THE STRUCTURE
CHGDOM	CHANGE THE DOMAIN FOR AN ALTERED ATTRIBUTE
CHGLOBL	CHANGES THE GLOBAL DB PARAMETERS
CHKATT	CHECK IF ATTRIBUTES HAVE BEEN CREATED ACCORDING TO STANDARDS
CHKAUCV	CHECK EXISTENCE OF AUC TO SET MAPPING
CHKCARD	OBTAINS THE USER-SPECIFIED CARDINALTY (IF ANY) FOR THE RELATION.
CHKDOMS	VERIFY THAT THE DATA ITEM AND ATTRIBUTE USE CLASS.

# WDDL COMMAND PROCESSOR Module List

Module Name	Purpose
CHKINH	checks the RC-DEPKC table and determines when a key class can be add
CHKKEYS	CHECKS TO SEE IF A KEY CLASS FULFILLED RULES.
CHILOOP	CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS
CHKMOD	DETERMINES WHETHER CERTAIN RULES ARE FULFILLED,
CHKOWN	checks each of the OWN-ec's key classes against the RC-DEPKC_LIST.
CHKREL	CHECK IF RELATIONS HAVE BEEN CREATED ACCORDING TO STANDARDS
CKDUPEC	POPULATES A TABLE WITH ENTITY NAMES.
CKRWLST	SEARCHES THE TABLE OF RENAME PAIR LOOKING FOR AN OLD-TAG ENTRY.
CLSFIL	THIS ROUTINE CLOSES AN OUTPUT FILE. THE FILE WILL
CHBACAL	GENERATE CREATE ALIAS ATTRIBUTE AND ALIAS DESC TEXT COMMANDS
CHBALI	GENERATE CREATE ALIAS ENTITYCOMMAND
CHBEKA	GENERATE ADD KEYWORD CLAUSE FOR ENTITY KEYWORDS
CHBENT	CONROLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND.
CMBOA	GENERATE COMMANDS FOR ATTRIBUTES, ITS KEYWORDS, ALIAS, DESC

# NDDL COMMAND PROCESSOR Module List

Hodule Name	Purpose
CMBRKV	SELECT AND GENERATE RELATION CLASS KEYWORDS
CMPHOD	CONTROLS THE PROCESSING LOGIC TO COMPARE TWO MODELS.
COBINDN	ORACLE ROUTINE
COCLOSE	ORACLE ROUTINE
COCOF	ORACLE ROUTINE
COCON	ORACLE ROUTINE
CODFINN	ORACLE ROUTINE
COERMSG	ORACLE ROUTINE
COEXEC	ORACLE ROUTINE
COFETCH	ORACLE ROUTINE
COLOGOF	ORACLE ROUTINE
COLON	ORACLE ROUTINE
COMMIT	STORE THE REUSEABLE NUMBER TO THE DATA BASE.
COOPEN	ORACLE ROUTINE
COPATT	CONTROLS THE PROCESSING LOGIC FOR COPYING AN ATTRIBUTE.
COPENT	CONTROLS THE PROCESSING LOGIC FOR THE COPY ENTITY COMMAND.
COPYAC	CREATE AN ATTRIBUTE, ASSOCIATE WITH ENTITY, ADD KEY CLASSES
COROL	ORACLE ROUTINE

# MDDL COMMAND PROCESSOR Module List

Module Name	Purpose
Cosóra	ORACLE ROUTINE
CPFCOR	ACCESS A TOKEN IN A CORRESPONDING NAMED LIST
CPFNXT	ACCESS THE NEXT TOKEN IN A PARSER LIST.
CPFONE	EXTRACT THE FIRST TOKEN FROM THE NAMED LIST
CPFVAL	RETURN THE COUNTER OF LIST1 BASED ON ROW IN LIST2
CPYDES	COMMAND PROCESSOR FOR COPY DESCRIPTION
CPYMOD	CONTROLS THE PROCESSING LOGIC FOR THE COPY MODEL COMMAND.
CRTALI	CREATES ALIASES FOR AN ENTITY OR ATTRIBUTE.
CRTATT	CONTROLS THE PROCESSING LOGIC FOR CREATING AN ATTRIBUTE.
CRTDOM	PROGRAM NAME CRTDOM
CRTENT	CONTROL THE PROCESSING LOGIC FOR CREATING A NEW ENTITY CLASS.
CRTMAP	CREATE MAP COMMAND PROCESSOR
CRTMOD	CONTROL THE PROCESSING LOGIC IF CREATING A MODEL WITHIN THE SYSTEM.
CRTREL	CONTROLS THE LOGIC FOR VALIDATING AND CREATING A NEW RELATION CLASS.
CRTVIEW	CONTROLS THE PROCESSING LOGIC FOR THE CREATE VIEW COMMAND.

# NDDL COMMAND PROCESSOR Module List

Module Name	Purpose
DEFAREA	PROCESSES THE AREA INFORMATION IF THE DBMS IS IDS-II, IDMS AND VAX-1
DEFCODL	PROCESSES THE DBMS TYPES: VAX-11, IDMS, IDS-II.
DEFDB	CONTROLS THE PROCESSING LOGIC FOR DEFINING A DATABASE TO THE SYSTEM.
DEFFLD	PROCESSES THE FIELD INFORMATION FOR THE DEFINE RECORD COMMAND.
DEFINS	PROCESSES THE DBMS TYPE: IMS.
DEFINSS	PROCESSES THE SEGMENT INFORMATION IF THE DBMS IS IMS.
DEFKEY	PROCESSES THE KEY INFORMATION FOR THE DEFINE RECORD COMMAND.
DEFORCL	PROCESSES THE DBMS TYPE: ORACLE.
DEFREC	CONTROLS THE PROCESSING LOGIC FOR DEFINING A RECORD FOR THE SYSTEM.
DEFSET	CONTROLS THE PROCESSING LOGIC FOR THE DEFINE SET COMMAND.
DEFTOT	PROCESSES THE DBMS TYPE: TOTAL.
DEL1 PDF	DELETE A RECORD FROM PROJECT_DATA_FIELD ENITY
DELAC	DELETE A RECORD FROM ATTRIBUTE_CLASS
DELACAL	DELETE RECORD CLASS FROM ATTRIBUTE_NAME
DELACKW	DELETE A RECORD FROM AC_KEYWORD
DELACNM	DELETE RECORD CLASS FROM ATTRIBUTE_NAME WHERE AC_NO

# NDDL COMMAND PROCESSOR Module List

Hodule Name	Purpose
DELASM	DELETE FROM ATTRIBUTE USE CLASS MAPPING
DELASH1	DELETE A RECORD FROM AUC_ST_MAPPING ENITY
DELASH2	DELETE A RECORD FROM AUC_ST_MAPPING ENITY
DELAUC	DELETE INHERITED_ATT_USE, KEY_CLASS_MEMBER,
DELAUCK	DELETE ATTRIBUTE USE CLASS KEY MEMBER GIVEN
DELAUCL	DELETE A RECORD FROM ATTRIBUTE_USE_CL
DELCMPR	DELETE A RECORD FROM COMPLETE_RELATION
DELCPRC	DELETE A RECORD FROM COMPLETE_RELATION
DELDAA1	DELETE A RECORD FROM DB_AREA_ASSIGNMENT ENITY
DELDAA2	DELETE A RECORD FROM DB_AREA_ASSIGNMENT ENITY
DELDBA1	DELETE A RECORD FROM DATA_BASE_AREA ENITY
DELDBDF	DELETE ALL DATA FIELD ASSOCIATIONS WITH THE DATABASE
DELDERT	DELETE ALL RECORD TYPE ASSOCIATIONS WITH THE DATABASE
DELDBS 1	DELETE A RECORD FROM DATA_BASE ENITY
DELDEST	DELETE ALL RECORD SETS' ASSOCIATIONS WITH THE DATABASE
DELDFL1	DELETE A RECORD FROM DATA_FIELD ENITY
DELDFL2	CONTROLS THE DELETING OF DATA FIELDS

# WDDL COMMAND PROCESSOR Module List

Module Name	Purpose
DELDFL3	DELETE A RECORD FROM DATA_FIELD ENITY
DELDIV	DELETE FROM DATA_ITEM WHERE
DELLOON	DELETE RECORD CLASS FROM DOMAIN_CLASS
DELDSL1	DELETE A RECORD FROM DF_SET_LINKAGE ENITY
DELDSL2	DELETE A RECORD FROM DF_SET_LINKAGE ENITY
DELDSL3	DELETE A RECORD FROM DF_SET_LINKAGE ENITY
DELDT	DELETE RECORD CLASS FROM USER_DEF_DATA_TYPE
DELDTD	DELETE RECORD CLASS FROM USER_DEF_DATA-TYPE
DELDTNO	DELETE ALL DATA TYPES ASSOCIATED WITH A DOMAIN
DELEC	DELETE THE RECORD FROM ENTITY_CLASS
DELECAL	DELETE RECORD CLASS FROM ENTITY_NAME
DELECKV	DELETE A RECORD FROM EC_KEYWORD
DELECNH	DELETE THE RECORD FROM ENTITY_NAME
DELIASM	DELETE RECORD CLASS FROM AUC_ST_MAPPING
DELIAUC	DELETE A REORD FROM INHERITED_ATT_USE
DELIAUK	DELETE A RECORD FROM INHERITED_ATT_USE ENITY
DELIPDF	DELETE RECORD CLASS FROM PROJECT_DATA_FIELD
DELIRCS	DELETE RECORD CLASS FROM RC_BASED_REC_SET

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Module Name	Purpose
DELISS1	DELETE A RECORD FROM INS_SEGMENT_SIZE ENITY
DELISS2	DELETE A RECORD FROM INS_SEGMENT_SIZE ENITY
DELKC	DELETE A RECORD FROM KEY_CLASS
DELKCM	DELETE A RECORD FROM KEY_CLASS_MEMBER
DELKCMT	DELETE A RECORD FROM KEY_CLASS_MEMBER
DELKA	DELETE A RECORD FROM AC_KEYWORD
DELKVAC	DELETE A RECORD FROM AC_KEYWORD
DELKWEC	DELETE A RECORD FROM EC_KEYWORD
DELKWRC	DELETE A RECORD FROM RC_KEYWORD
DELMDKC	DELETE ALL KEY CLASSES AND INHERITED KEYS FOR AN ENTITY
DELMDRC	DELETE ALL RELATION CLASSES FOR AN ENTITY
DELMIGK	DELETE HIGRATING KEY CLASS
DELMOD	DELETE A RECORD FROM MODEL_CLASS ENITY
DELMTKC	DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER
DELOAC	DELETE ALL OWNED AND INHERITED ATTRIBUTES
DELOACE	DELETE A RECORD FROM OWNED_ATTRIBUTE ENITY
DELOWAC	DELETE A RECORD FROM OWNED_ATTRIBUTE
DELPCB	DELETE A RECORD FROM PSB_PCB ENITY

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### NDDL COMMAND PROCESSOR Module List

Module Name	Purpose
DELPDFT	DELETE A RECORD FROM PROJECT_DATA_FIELD ENITY
DELPDI	DELETE RECORD CLASS FROM PROJECT_DATA_ITEM
DELRBR1	DELETE A RECORD FROM RC_BASED_REC_SET ENITY
DELRBR2	DELETE A RECORD FROM RC_BASED_REC_SET ENITY
DELRBR3	DELETE A RECORD FROM RC_BASED_REC_SET ENITY
DELRC	DELETE A RECORD FROM RELATION_CLASS
DELRCKV	DELETE A RECORD FROM RC_KEYWORD
DELRCST	DELETE RECORD CLASS FROM RC_BASED_REC_SET
DELREUS	
DELRKM1	DELETE A RECORD FROM RECORD_KEY_MEMBER ENITY
DELRKM2	DELETE A RECORD FROM RECORD_KEY_MEMBER ENITY
DELRKM3	DELETE A RECORD FROM RECORD_KEY_MEMBER ENITY
DELRKY1	DELETE A RECORD FROM RECORD_KEY ENITY
DELRKY2	DELETE A RECORD FROM RECORD_KEY ENITY
DELRST2	DELETE A RECORD FROM RECORD_SET ENTITY
DELRST3	DELETE A RECORD FROM RECORD_SET ENITY
DELRTY2	DELETE A RECORD FROM RECORD_TYPE ENITY

Hodule Name	Purpose
DELSDF1	DELETE A RECORD FROM SEGMENT_DATA_FIELD ENITY
DELSDF2	DELETE A RECORD FROM SEGMENT_DATA_FIELD ENITY
DELSDF3	DELETE A RECORD FROM SEGMENT_DATA_FIELD ENITY
DELSEC	DELETE RECORD CLASS FROM SEC
DELSECR	DELETE RECORD CLASS FROM SEC_RC_COMPONENT
DELSN1	DELETE A RECORD FROM SCHEMA_NAMES ENITY
DELSTM1	DELETE A RECORD FROM SET_TYPE_MEMBER ENITY
DELSTM2	DELETE A RECORD FROM SET_TYPE_MEMBER ENTITY
DELSTM3	DELETE A RECORD FROM SET_TYPE_MEMBER ENITY
DELTEXT	DELETE A RECORD FROM DESC_TEXT ENITY
DELTXT	DELETE DESCRIPTION TEXT GIVEN THE OBJECT TYPE,
DEPATT	SELECT ALL THE ATTRIBUTES IN THE
DEPENT	SELECT ALL THE DEPENDANT ENTITY CLASSES
DEPFROM	GENERATE CREATE RELATION, DESCRIBE COMMANDS IN THE TO-MODEL
DEPREL	FOR EACH LEVEL OF RELATIONS IN STRUCTURE GENERATE
DESCRB	COMMAND PROCESSOR FOR THE NDDL DESCRIBE COMMAND
DLDSL2	DELETE A RECORD FROM DF_SET_LINKAGE ENTITY

Module Name	Purpose
DLHDAUC	DELETE ATTRIBUTE USE CLASSES ASSOCIATED WITH ENTITY
DLMIGRC	DELETE MIGRATING KEY CLASS
DOMUSAG	DETERMINE IF DOMAIN ASSOCIATED WITH VIEWS, DATAFIELDS, ATTRIBUTES
DPKCLST	CREATE AN KEY_CLASS_LIST TABLE CONTAINING ALL THE ENTITY
DRPAC	DELETE OWNED ATTRIBUTES ASSOCIATED WITH ENTITY
DRPALI	DROP THE ALIAS FOR AN ENTITY OR ATTRIBUTE.
DRPATT	CONTROLS THE DROPPING OF USER SPECIFIED ATTRIBUTE CLASSES FROM THE C
DRPDB	CONTROLS THE PROCESSING LOGIC FOR DELETING THE DATA BASE.
DRPDF	DELETE A RECORD FROM DATA_FIELD ENITY
DRPDIV	DELETE DATA ITEM DESCRIPTION TEXTS ASSOCIATED WITH VIEW
DRPDOM	PROGRAM NAME
DRPDT	DROP A DATA TYPE WITHIN A DOMAIN.
DRPENT	CONTROL THE PROCESSING LOGIC FOR DELETING ENTITIES.
DRPFLD	CONTROLS THE PROCESSING LOGIC FOR DROPPING A DATA FIELD.
DRPKC	CONTROLS THE PROCESSING LOGIC FOR THE "DROP KEY CLASS".

Module Name	Purpose
DRPKW	DROP A KEYVORD ASSOCIATION FROM EITHER AN ATTRIBUTE, ENTITY OR RELATI
DRPKVC	OBTAIN THE USED IDENTIFIED KEYWORD, THEN DROP THEIR ASSOCIATIONS.
DRPHAP	COMMAND PROCESSOR FOR THE DROP MAP COMMAND
DRPMGKM	DELETE MIGRATED KEY CLASSES ASSOCIATED WITH A KEY CLASS
DRPHGRC	DELETE MIGRATED KEY CLASS MEMBERS ASSOCIATED WITH A KEY CLASS
DRPHIG	CONTROLS THE PROCESSING LOGIC FOR THE "DROP HIGRATES" CLAUSE.
DRPHOD	CONTROLS THE PROCESSING LOGIC TO DROP A MODEL.
DRPRCE	DROP A RELATION CLASS FOR AN ENTITY BEING DROPPED
DRPREC	CONTROLS THE PROCESSING LOGIC FOR THE DROP RECORD COMMAND.
DRPREL	CONTROLS THE PROCESSING LOGIC FOR THE "DROP RELATION" COMMAND.
DRPSET	CONTROLS THE PROCESSING LOGIC FOR DELETING A SET FROM THE DATABASE.
DRPSMAP	DROP A SINGLE MAPPING
DRPVIEW	DROP THE VIEW.
DTUSAGE	DETERMINE ASSOCIATIONS OF A DATA TYPE
ENTKV	SEARCH FOR ENTITY KEYWORD MATCHES WITHIN TWO MODELS

5.5.5.	
Module Name	Purpose
ERRRPT	HANDLE ANY ERROR CODE FROM ORACLE,
EXCFLAG	DETERMINE IF KEYWORDS, ALIASES, DESCR ARE TO BE EXCLUDED
EXPRCLT	EXPAND RELATION LIST TO INCLUDE DEP AND IND ENTITIES
EXPRTLT	EXPAND THE RETRIEVE LIST (SELECTFROM)
PCOPATT	GENERATE NDDL COMMANDS FROM A COPY ATTRIBUTE COMMAND
FCOPENT	DETERMINE IF COPY ENTITY WITH STRUCTURE OR RELATION
PILEINS	INSERT DESCRIPTION TEXT INTO CDM
FINDDOM	RETRIEVE A DOMAIN NUMBER FOR A GIVEN DOMAIN NAME
FHTIAUC	FORMATS A LINE FOR THESET CLAUSE
FND1MEM	RETRIEVE RECORD TYPE OF MEMBER ASSOCIATED WITH A SET
FNDACH	DELETE ALL ATTRIBUTE CLASSES FROM A GIVEN MODEL
FNDASA	VERIFY WHETHER A SET HAS BEEN MAPPED TO AN AUC
FNDASM	DETERMINES IF AN AUC TO SET TYPE MAPPING EXISTS
FNDAUC	DELETE ALL ATTRIBUTE USE CLASSES FOR A GIVEN ENTITY CLASS
FNDECM	DELETES ALL ENTITIES AND ASSOCIATED OBJECTS FOR A GIVEN MODEL

Module Name	Purpose
FNDOAC	DELETES ALL OWNED ATTRIBUTES FOR A GIVEN ENTITY CLASS
FNDRCM	RETRIEVES ALL RC/RT MAPPINGS FOR A MAMED RECORD
PRTOREL	DETERMINE IF RELATION EXISTS BETWEEN INTRA-MOD ENTITIES
GENAKV	RETRIEVE ALL KEYWORDS FOR AN ATTRIBUTE CLASS
GENALI	GENERATE A CREATE ALIAS COMMAND FOR AN OBJECT TYPE
GENALT1	GENERATE AN ALTER ENTITYADD KEY CLASS COMMAND
GENALTE	GENERATE AN ALTER ENTITY ADD KEY CLASS COMMAND
GENATT	GENERATE A CREATE ATTRIBUTE COMMAND
GENDESC	GENERATED NDDL DESCRIBE COMMANDS FOR A GIVEN OBJECT TYPE AND NO
GENEKW	SELECT KEYWORD FOR ENTITY AND CREATE KEYWORD PHRASE FOR CRT ENT
GENENT	GENERATE A CREATE ENTITYOWNED ATTRIBUTEKEYWORD COMMAND
GENENT 1	GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.
GENOA	SELECT OWNED ATT FOR ENTITY AND CREATES OWNED ATT FOR CRT ENT
GENREL	GENERATE CREATE RELATIONMIGRATESKEYWORD COMMAND

Module Name	Purpose
GENRKY	SELECT KEYWORDS FOR RELATION CREATES KV PHRASE FOR CREATE BC
GENRUME	PORMAT THE CREATE RELATION CLAUSE
GETACAL	VERIFY THE EXISTANCE OF AN ALIAS FOR AN ATTRIBUTE
GETDBST	RETURN INFORMATION ABOUT THE CURRENT SESSIONS' DATABASE
GETDOM	RETRIEVES DOMAIN NUMBER BASED ON TAG NAME FOR AUC
GETDRT	PETCH DATA BASE, RECORD TYPE INFO FROM PARSER LISTS
GETECAL	VERIFIES THE EXISTANCE OF AN ALIAS FOR AN ENTITY
GETECHN	THIS ROUTINE SEARCHES THE UNBOUNDED RC_LIST DATA
GETECS	USING ENTITY CLASS VERIFIES CHECK MODEL RULES
GETGLOB	WILL PROVIDE GLOBAL VARIABLES
GETHAPC	SELECT ALL PROJECT DATA FIELDS MATCHING A GIVEN TAG NO
GETNCHR	GET THE NEXT CHARACTER FROM EITHER STANDARD INPUT
GETNNUM	
GETNXNO	
GETRCID	QUERIES CDM FOR INFORMATION ABOUT A RELATION CLASS

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# NDDL COMMAND PROCESSOR Module List

Module Name	Purpose
GETRONN	RETRIEVE RELTION CLASS NAME, IND AND DEP
GETROH	RETURN WITH CURRENT SESSIONS' DATA BASE INFO
HALT	HALT WITH 'COMMIT' OR 'ROLLBACK'.
ICOPATT	INTERACTIVE COPY ATTRIBUTE, WITH KEYWORDS, ALIAS, DESCRS.
ICOPENT	INTERACTIVE COPY ENTITY WITH ATRRIBUTES, KEYWORDS, ALIAS, DESC
INDFROM	RETRIEVES RELATIONS, DETERMINES IND EC AND GENERATES NDDL
INITCHD	INITIALIZATION FOR EACH COMMAND TO BE PROCESSED
INITROL	INITIALISE THE TABLE WHICH STORES A MODELS RELATIONS
INITSES	PERFORM ANY SESSION INITIALIZATION NECESSARY
INSAC	INSERT A RECORD INTO ATTRIBUTE_CLASS
INSACNH	INSERT A RECORD INTO ATTRIBUTE_NAME
INSAREA	INSERT A RECORD INTO THE DATA_BASE AREA ENTITY. IF
INSAUC	INSERT A RECORD INTO ATTRIBUTE_USE_CL
INSAUCS	INSERT A RECORD INTO AUC_ST_MAPPING
INSCRC	INSERT A RECORD INTO COMPLETE_RELATION
INSDAA	INSERT A RECORD INTO THE DB_AREA_ASSIGNMENT ENTITY. IF

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Module Name	Purpose
INSDB	INSERT A RECORD INTO THE DATA_BASE ENTITY.
INSDFLD	INSERT A RECORD INTO THE DATA_FIELD ENTITY.
INSDI	INSERT A RECORD INTO DATA_ITEM
INSDOM	INSERT A RECORD INTO DOMAIN_CLASS
INSDSL	INSERT A RECORD INTO THE DF_SET_LINKAGE ENTITY. IF
INSDT	INSERT A RECORD INTO USER_DEF_DATA_TYPE
INSEC	INSERT A RECORD INTO ENTITY_CLASS
INSECNM	INSERT A RECORD INTO ENTIYT_NAME
INSIAUC	INSERT A RECORD INTO INHERITED_ATT_USE
INSISS	INSERT A RECORD INTO THE IMS_SEGMENT_SIZE ENTITY. IF
INSKC	INSERT A RECORD INTO KEY_CLASS
INSKCM	INSERT A RECORD INTO KEY_CLASS_MEMBER
Inska	INSERT A RECORD INTO KEYWORD
INSKWAC	INSERT A RECORD INTO AC_KEYWORD
INSKWEC	INSERT A RECORD INTO EC_KEYWORD
INSKWRC	INSERT A RECORD INTO RC_KEYWORD
INSHOD	INSERT A RECORD INTO MODEL_CLASS
INSOAC	INSERT A RECORD INTO OWNED_ATTRIBUTE

Module Name	Purpose
INSPCB	INSERT A RECORD INTO THE PSB_PCB ENTITY.
INSPDF	INSERT A RECORD INTO PROJECT_DATA_FIELD
INSPDI	INSERT A RECORD INTO PROJECT_DATA_ITEM
INSPSB	INSERT A RECORD INTO THE PSB ENTITY. IF
INSPWRD	INSERT A RECORD INTO THE DB_PASSWORD. IF SUCCESSFUL.
INSRC	INSERT A RECORD INTO RELATION_CLASS
INSRCRS	INSERT A RECORD INTO RC_BASED_REC_SET
INSREUS	INSERT A RECORD INTO REUSABLE_NUMBER
Insrkey	INSERT A RECORD INTO THE RECORD_KEY ENTITY. IF
INSRKM	INSERT A RECORD INTO THE RECORD_KEY_MEMBER ENTITY. IF
INSRSET	INSERT A RECORD INTO THE RECORD_SET ENTITY. IF
INSRTYP	INSERT A RECORD INTO THE RECORD_TYPE ENTITY. IF
INSSCH	INSERT A RECORD INTO THE SCHEMA_NAMES ENTITY. IF
Inssdfl	INSERT A RECORD INTO THE SEGMENT_DATA_FIELD ENTITY. IF
INSSEC	INSERT A RECORD INTO SEC
INSSECR	INSERT A RECORD INTO SEC_RC_COMPONENT

Module Name	Purpose
INSSTM	INSERT A RECORD INTO THE SET_TYPE_MEMBER ENTITY. IF
KEYLOOK	RETRIVES KEYCLASS NAME AND NUMBER BASED ON TAG NO
LOADESC	LOAD DESCRIPTION FROM TEXT EDITOR
LOWUPP	CONVERT A STRING TO UPPER CASE CHARACTERS
MAPADF	MAP ON AUC TO A DATA FIELD
Mapaset	MAP AN AUC TO A SET
MAPRC	MAP A RELATION CLASS TO A SET
MIGREL	GENERATE A HIGRATES CLAUSE FOR A CREATE RELATION COMMAND
HKRNLST	FETCH LIST OF RENAME PAIRS FOR MIGRATESSETCLAUSE
MRGMOD	MERGE TWO IDEF HODELS INTO ONE
MRGMOD1	COPY MODEL-1 INTO A NEW MODEL (MODEL-5)
HRGHOD2	CONTROL THE LOGIC FOR PROCESSING THE REMAINING MODEL_2
MRGNODE	SELECT ALL THE TOP NODE (LEVEL 1) INDEPENDENT ENTITY'S
NDDL/HAIN	MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR
NEXTKC	THIS ROUTINE RETURNS A KC_NAME FOR A GIVEN EC_NO FROM
NEXTKCH	THIS ROUTINE RETURNS A KG_NO, KG_NAME FOR A GIVEN EC_NO

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# NDDL COMMAND PROCESSOR Module List

Module Name	Purpose
NRGET	
MRSTORE	STORE A AVAILABLE NO OF A POOL NO BACK TO NO LINKED
P1FROM	CREATE A VIEW USING A SINGLE ENTITY CLASS( ES-CS-MAPPING)
PDFDB	RETRIEVES PROJECT DATA FIELDS FOR A GIVEN DATA BASE
PDFDF	RETRIVES ALL THE PROJ DATA FIELD OR DF BEING DROPPED
PDFREC	RETRIEVES ALL PORJECT DATA FIELDS FOR A GIVEN RECORD
PDFSRCH	DETERMINES IF A TAG HAS A PRIMARY MAP TO DATA FIELD
PMFROM	CREATE A VIEW FROM MULTIPLE ENTITY CLASSES
PNOFROM	PROCESS A VIEW COMMAND FOR MULTIPLE ENTITY CLASSES
PRCCMD	THIS ROUTINE IS CALLED TO HANDLE ALL
PROCDT	PROGRAM NAME
RACKW2	COMPARES ATTRIBUTE CLASS KEYWORDS
RCCHEK	CHECK IF A RELATION CLASS EXISTS FOR A GIVEN MODEL
RCCHEK1	CHECK IF A RELATION CLASS EXISTS FOR A GIVEN HODEL
RDDESC	STORE DESCRIPTION ON THE CDM
RECKW2	COMPARES ENTITY CLASS KEYWORDS BETWEEN

MODELS

Module Name	Purpose
RELKY	CHECKS RC KW BETWEEN MODELS
REMVIEW	POPULATE VIEW DEFINITION AND ES-CS-MAPPING
RENAME	UPDATE EXISTING OBJECT NAME WITH NEW OBJECT NAME
RETACKY	POPULATES KEYWORD TABLE FOR ATTRIBUTE CLASS KEYWORDS
RETECKV	POPULATES KEYWORD TABLE FOR ENTITY CLASS KEYWORDS
RETRAC1	DETERMINES IF ANY ATTRIBUTE CLASS NAMES MATCH BETWEEN MODELS
RETRACP	SELECT ATTRIBUTE CLASS NAME USING THE ATTRIBUTE CLASS NUMBER
RETRCKV	POPULATES THE KEYWORD CDM TABLE FOR RELATION CLASS KEYWORDS
RETREC1	COMPARES ENTITY CLASS NAMES FOR TWO HODELS
RETRECP	RETIEVE AN ENTITY CLASS NAME FOR A GIVEN NO. AND NAME TYPE
ROLBACK	ROLBACK THE TRANSACTIONS.
RRCKV2	COMPARES RELATION CLASS KEY WORDS FOR TWO MODELS
SELACNH	RETRIEVE THE PRIMARY NAME FOR ATTRIBUTE CLASS
SELECMM	RETRIEVE THE PRIMARY NAME FOR AN ENTITY CLASS

SELECTS ALL THE INHERITED TAG NAMES

SELIAUC

Module Name	Purpose
SELIKEY	RETRIEVE ALL INHERITED KEYS FOR A GIVEN EC AND RC
SELRCIM	RETRIEVE ALL RELATION CLASSES FOR WHICH AN ENTITY IS PART OF
SELRSET	DELETE ALL ASSOCIATIONS IN THE CDM FOR A SET BEING DROPPED
SELSTM	DELETES ALL OWNER/MEMBERS OF THE RECORD TYPE BEING DROPPED
SMVIEW	CREATE ES-CS-MAPPING FOR USER SPECIFED RETRIEVE LIST
STRINS ·	INSERT DESCRIPTION TEXT INTO THE CDM
TERMSES	ROUTINE TO TERMINATE AN NDDL
TLOOPCK	CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE MIERARCHY
TOPNODE	SELECT ALL THE LEVEL 1 TOP NODE INDEPENDENT ENTITY
TXTTYP	DETERMINE SOURCE OF DESCRIPTION TEXT
UERROR	ISSUE A MESSAGE TO THE USER, CONSIDERED A
UPDAC	UPDATE ATTRIBUTE_CLASS SET DOMAIN_NO = : 1
UPDACAL	UPDATE MODEL_CLASS SET AC_NAME_TYPE = : 1
UPDACNM	UPDATE ATTRIBUTE_NAME SET AC_NAME = : 1
UPDECAL	UPDATE MODEL_CLASS SET EC_NAME_TYPE = : 1
UPDECNM	UPDATE MODEL_CLASS SET ENTITY_NAME = : 1
UPDIND	UPDATE USER_DEF_DATA_TYPE SET DATA_TYPE_IND = : 1

Module Name	Purpose
UPDHNAH	UPDATE MODEL_CLASS SET MODEL_NAME = : 1
UPDMOD	UPDATE MODEL_CLASS SET MODEL_STATUS = : 1
UPDNXNO	
UPDRCNM	UPDATE RELATION_CLASS SET RC_NAME = : 1
UPDTDOM	UPDATE DOMAIN SET DOMAIN_NAME = : 1
UPDTDT	UPDATE USER_DEF_DATA_TYPE SET TYPE_ID = :
UPDTKW	UPDATE KEYWORD SET KEYWORD = : 1
UPDTRC	<pre>UPDATE RELATION_CLASS SET NO_IND_ENT = : 1,</pre>
UPDVIEW	UPDATE VIEW SET SEC_ID = : 1
UWARN	ISSUE A MESSAGE TO THE USER, CONSIDERED A
VERACDT	DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH ATTRIBUTE CLASSES
VERACNM	RETRIEVE THE DOMAIN FOR AN ATTRIBUTE CLASS
VERALI	VERIFY THE EXISTENCE OF AN ALIAS NAME FOR AN ENTITY
VERAREA	VERIFY THE EXISTENCE OF AN AREA FOR A DATA BASE
VERASH	DETERMINE IF AMY AUC/SET MAPPINGS EXIST FOR AN AUC
VERATT	VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A MODEL
VERAUC	VERIFY THE EXISTENCE OF AN ATTRIBUTE USE CLASS

Module Name	Purpose
VERCRC	DETERMINE IF A KEY CLASS IS PART OF A COMPLETE RELATION
VERDB	VERIFY THE EXISTENCE OF A DATA BASE IN THE CDM
VERDBAS	VERIFY A DATA BASE FOR A GIVEN NAME AND HOST
VERDF	VERIFY THE EXISTENCE OF A DATA FIELD
VERDFDT	DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH A PROJECT DF
VERDFLD	VERIFIES THE EXISTENCE OF A DATA FIELD FOR A GIVEN DATA BASE
VERDI	VERIFY TEH EXISTENCE OF A DATA ITEM IN A GIVEN VIEW
VERDIDT	DETERMINE IF A DATA TYPE IS ASSOCIATED WITH ANY DATA ITEMS
VERDOM	VERIFY THE EXISTENCE OF A DOMAIN CLASS IN THE CDM
VERDSL3	RETRIEVES SET ID FOR TOTAL DATA BASE
VERDSTP	VALIDATE A USER ENTERED DESCRIPTION TYPE
VERDSTX	VERIFY THE EXISTENCE OF DESC. TEXT FOR A GIVEN OBJECT
VERDT	VERIFY THE EXISTENCE OF A USER DEFINED DATA TYPE
VERDTD	VERIFY THE EXISTENCE OF A DATA TYPE IN A GIVEN DOMAIN
VERENT	VERIFY THE EXISTENCE OF AN ENTITY CLASS IN A MODEL

Hodule Name	Purpose
VERKC	VERIFY THE EXISTENCE OF A KEY CLASS IN A MODEL
VERKV	verify the existence of a keyword.
VERKWE	VERIFY THE EXISTENCE OF ENTITY CLASS KEYWORD
VERKWR	VERIFIES THE EXISTANCE OF A RELATION CLASS KEYWORD.
VERMOD	verify the existence of a model and return the unique number.
VERNMA	verify the existence of an attribute class in a model.
VERNME	verify the existence of an entity class in a model.
VEROAC	verify the existence of an owned attribute class for an entity.
VEROBJ	VERIFY THAT THE OBJECT EXISTS.
VERPDF	verify the existence of a project_data_field occurrence.
VERPSB	VERIFIES THE EXISTANCE OF A PROGRAM STATUS BLOCK FOR AN IMS DATABASE
VERRC	verify the existence of a relation class.
VERRCBS	verify if there are any mapping to a set found in RC_BASED_REC_SET.
VERRCC	verify if the relation class is complete.
VERRCMP	verify whether a member has been mapped to a relation class.

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Module Name	Purpose
VERRCNM	VERIFY EXISTANCE OF A RELATION IN A MODEL
VERRCST	REPORT WHETHER A RC TO SET MAP EXISTS.
VERREL	VERIFY THE DEPENDENT AND INDEPENDENT ENTITIES IN THE RELATION
VERRELS	VERIFY THE RELATION CLASS STRUCTURE
VERRK	verifies the existance of a key for a record.
VERRKM	verifies the existance of a data field for a record.
VERRSET	VERIFIES THE EXISTANCE OF A SET.
VERRT	VERIFIES THE EXISTANCE OF A RECORD TYPE.
VERSDT	For a given domain number, return its standard data type name.
VERSMS	fetch the member count for a given set.
VERTYP	verifies that a type identification for a data type is valid.
VERUDTN	verify the existence of a USER DEFINED DATA TYPE (USERDATATYPE)/USDF
VERVIEW	verify the existence of a view in the system.
VOMAPS	ENFORCES AUC TO SET MAPPING RULES.
WRTACKW	RETREIVE AND WRITE ALL THE KEYWORDS ASSOCIATD WITH AN ATTRIBUTE CLAS
WRTALI	RETRIEVE ALL ALIAS NAMES OF AN ATTRIBUTE CLASS.

Module Name	Purpose
WRTANAM	RETRIEVE AND COPY ALL THE NAMES (PRIMARY AND ALIAS) OF AN ATTRIBUTE.
WRTDESC	SELECT A RECORD FROM DESC_TEXT ENITY
WRTDSC4	SELECT A RECORD FROM DESC_TEXT ENITY
WRTECKW	RETREIVE AND COPY ALL THE KEYWORDS ASSOCIATED WITH AN ENTITY CLASS.
WRTENAM	RETRIEVE AND COPY ALL THE ALIAS NAMES OF AN ENTITY CLASS.
WRTLIN	THIS ROUTINE WRITES A NDDL COMMAND LINE (80 CHARACTERS)
YYERROR	**** PURPOSE NOT FOUND BY STRIPPER ****
YYPARSE	**** PURPOSE NOT FOUND BY STRIPPER ****
YYWRAP	**** PURPOSE NOT FOUND BY STRIPPER ****

# 5.10.5 External Routines List

The following is a list of all routines or functions not documented here that are called by modules that are documented here. The first caller, in alphabetical order, is listed as well. The specification in which any module is documented may be found in the Module Documentation Index (Document Number CM 620100001). See section 5.10.6 for a list of the modules that call each of these external routines.

### NDDL COMMAND PROCESSOR External Routines List

Module Name	First User
ADDFRM	INITSES
ALLOC	NRSTORE
ERRPRO	ICOPATT
EXIT	NDDL/MAIN
FCLOSE	CLSFIL
FREE	COMMIT
GDATA	PRCCMD
GETCHAR	GETNCHR
INITEX	initses
INITFP	initses
LOGOFF	TERMSES
LOGON	INITSES
OBINDN	PILEINS
OCLOSE	COCLOSE
OCOF	COCOF
OCOM	COCOM
ODFINN	CODFINN
OERMSG	COERMSG
OEXEC	FILEINS
OFETCH	COFETCH
OISCR	PRCCMD
OLOGOF	COLOGOF
OLON	COLON
OOPEN	COOPEN CESTRUC
OPNFIL OPNFRM	
OROL	INITSES COROL
OSQL3	COSOL3
PDATA	PRCCMD
PMSGLS	PROCHD
PRINTF	VEROBJ
PUTC	WRTLIN
RPLFRM	PRCCMD
SPRINTF	CPYDES
STRCAT	ADD CORR
STRLEN	ADD CORR
STRUCHP	ALLENT
STRUCPY	CPFNXT
TERMFP	TERMSES
TOLOWER	ADDMAP
TOUPPER	LOWUPP

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## NDDL COMMAND PROCESSOR External Routines List

Module Name

First User

TRUMDUL

TERMSES TYPARSE

#### 3.10.4 Include File List

The following is a list of all include files called in by modules being documented here. Each include file has a unique name regardless of the language being used. The purpose of each include file is listed as well. A more complete description of each include file is given in section 3.10.9. The purpose listed is the one that is in the source code of the include file.

A purpose of "\*\*\*\* PURPOSE MOT FOUND BY STRIPPER \*\*\*\* indicates that a purpose statement was not written into the include file itself. The most common reason for this is that the include file comes from system libraries that were not developed by the project, such as 'C' libraries that are provided with the 'C' compiler.

See section 3.10.6 for a set of lists which show all the modules which call in each of these include files.

# NDDL COMMAND PROCESSOR Include File List

File Name	Purpose
CHKMODL	DETERMINE IF CURRENT MODEL EXISTS FOR A SESSION
CMDS	COMMAND NO. FOR EACH NDDL/NDML COMMAND
ECLIST	CONTAINS A LIST OF ENTITY CLASS NUMBERS
ERRPRO	PROCESS ERROR INCLUDE FILE
PPCODE	FORM PROCESSOR RETURN CODES
FPPARM	FORM PROCESSOR PARAMETERS
KCLIST	PROCESS ERROR INCLUDE FILE
KEYLIST	DATA STRUCTURE FOR NDDL MODELLING COMMANDS
KWDTBL	KEYWORD TABLE
LISTID	PROVIDES LIST OF PARSED OBJECTS
LISTNOS	VALID LIST NUMBERS
LISTREL	
LISTS	PROVIDES THE DIMENSIONS OF THE NDDL LISTS
NDDL	**** PURPOSE NOT FOUND BY STRIPPER ****
MDDLEXY	**** PURPOSE NOT FOUND BY STRIPPER ****
NDDLYAC. IN	P"
	**** PURPOSE NOT FOUND BY STRIPPER ****
OK	GOOD RETURN CODE VALUE FOR UI
ORCLEDA	WS DEFINITION FOR THE ORACLE LOGIN AREA
RCDEPKC	LIST OF KEYS MIGRATED VIA A RELATION
RELTBL	LIST OF RELATION CLASSES IN A MODEL
RENLIST	LIST OF ATTRIBUTES AND INHERITED TAG PAIRS
SDLIST	SEC-DECOMPOSITION-LIST
SRVRET	AS THE RETURN GIVEN A TABLE-FULL ERROR
STDIO	**** PURPOSE NOT FOUND BY STRIPPER ****
STDTYP	STANDARD TYPE DEFINITIONS
UNIQENO	
AADI	LIST OF DATA ITEMS IN A VIEW
VWFROM	
VWRC	LIST OF RELATION CLASSES INHERENT TO A VIEW
VWRETR	LIST OF ENTITIES AND TAGS SPECIFIED IN A VIEW

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# 3.10.5 Where Include File Used List

The following lists each include file from 5.10.4 and all the modules documented in this specification which include them. The purpose of each module is listed as well.

Include	Module	Module
File	Name	Purpose
CHKHODL		
	ALTENT	CONTROL PROCESSING FOR ALTER ENTITY CLASS COMMAND.
	ALTREL	CONTROLS PROCESSING LOGIC FOR THE ALTER RELATION COMMAND
	CMBENT	CONROLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND.
	COPATT	CONTROLS THE PROCESSING LOGIC FOR COPYING AN ATTRIBUTE.
	COPENT	CONTROLS THE PROCESSING LOGIC FOR THE COPY ENTITY COMMAND.
	CPYMOD	CONTROLS THE PROCESSING LOGIC FOR THE COPY MODEL COMMAND.
	CRTATT	CONTROLS THE PROCESSING LOGIC FOR CREATING AN ATTRIBUTE.
	CRTENT	CONTROL THE PROCESSING LOGIC FOR CREATING A NEW ENTITY CLASS.
	CRTREL	CONTROLS THE LOGIC FOR VALIDATING AND CREATING A NEW RELATION CLASS.

#### **CMDS**

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ERRRPT	HANDLE ANY ERROR CODE FROM ORACLE,
NDDL/MAIN	MAIN PROGRAM FOR THE NDDL COMMAND
	PROCESSOR
PRCCMD	THIS ROUTINE IS CALLED TO HANDLE ALL
UERROR	ISSUE A MESSAGE TO THE USER, CONSIDERED A
UVARN	ISSUE A MESSAGE TO THE USER, CONSIDERED A
YYERROR	**** PURPOSE NOT FOUND BY STRIPPER ****
YYPARSE	**** PURPOSE MOT FOUND BY STRIPPER ****
TYWRAP	**** PURPOSE NOT FOUND BY STRIPPER ****

#### ECLIST

ALLKEY GENERATES KEY CLASS FOR AN ENTITY

BRANCHR PERFORMS MULTI-WAY CALL TO THE

Include File	Module Name	Module Purpose
	CHKOAN	checks each of the OWN-ec's key classes against the RC-DEPKC LIST.
	CKDUPEC	POPULATES A TABLE WITH ENTITY NAMES.

MRGMOD MERGE TWO IDEF MODELS INTO ONE

#### **ERRPRO**

ADDKWA	INSERT AN ATTRIBUTE KEYWORD
ADDKWE	INSERT AN ENTITY KEYWORD
ADDKWR	INSERT A RELATION KEYWORD
ADDMIG	PROCESS THE ADD MIGRATESSETCLAUSE
ADDOAG	ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND AS
	ATT USE CLASS
ALLKEY	GENERATES KEY CLASS FOR AN ENTITY
ALLVIEW	CREATE AN ES-CS-MAPPING FOR AUC TO DATA
NDDVIEW	ITEM
ATTKW	CONTROLS PROCESSING TO POPULATE KEYWORD
	TABLE FOR AUC KEYWORD
BLKCL1	STORE ALL KEY CLASS INFO FOR AN ENTITY IN
	A LIST
BLKCLST	SELECT AND STORE KEY CLASS INFO FOR A
	GIVEN ENTITY
CDP4A	VERIFY SURROGATE ENTITY CLASS STRUCTURE
CERELS	GENERATES NDDL COMMANDS ON A FILE FOR ALL
	ENTITIES IN A RELATION.
CESTRUC	GENERATES NDDL COMMANDS ON A FILE FOR ALL
	ENTITIES FOR THE STRUCTURE
CHKATT	CHECK IF ATTRIBUTES HAVE BEEN CREATED
	ACCORDING TO STANDARDS
CHKAUCV	CHECK EXISTENCE OF AUC TO SET MAPPING
CHKKEYS	CHECKS TO SEE IF A KEY CLASS FULFILLED
	RULES.
CHKMOD	DETERMINES WHETHER CERTAIN RULES ARE
•	PULFILLED.
CHKREL	CHECK IF RELATIONS HAVE BEEN CREATED
	ACCORDING TO STANDARDS
CMBACAL	GENERATE CREATE ALIAS ATTRIBUTE. AND
	ALIAS DESC TEXT COMMANDS
	vy

Module Name	Module Purpose
CMBALI	GENERATE CREATE ALIAS ENTITYCONMAND
CWBEKA	GENERATE ADD KEYWORD CLAUSE FOR ENTITY KEYWORDS
CMBENT	CONROLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND.
CMBOA	GENERATE COMMANDS FOR ATTRIBUTES, ITS
CMBRKW	KEYWORDS, ALIAS, DESC SELECT AND GENERATE RELATION CLASS
CMPMOD	KEYWORDS CONTROLS THE PROCESSING LOGIC TO COMPARE TWO MODELS.
COPATT	CONTROLS THE PROCESSING LOGIC FOR COPYING AN ATTRIBUTE.
COPENT	
COPYAC	CREATE AN ATTRIBUTE, ASSOCIATE WITH ENTITY, ADD KEY CLASSES
CRTMOD	CONTROL THE PROCESSING LOGIC IF CREATING A MODEL WITHIN THE SYSTEM.
DEFAREA	PROCESSES THE AREA INFORMATION IF THE DBMS
DEFCODL	IS IDS-II, IDMS AND VAX-1 PROCESSES THE DBMS TYPES: VAX-11, IDMS, IDS-II.
DEFDB	<del></del>
DEFFLD	PROCESSES THE FIELD INFORMATION FOR THE DEFINE RECORD COMMAND.
DEFIMS	PROCESSES THE DBMS TYPE: IMS.
DEFIMSS	
DEFKEY	PROCESSES THE KEY INFORMATION FOR THE DEFINE RECORD COMMAND.
DEFORCI.	PROCESSES THE DBMS TYPE: ORACLE.
DEFREC	CONTROLS THE PROCESSING LOGIC FOR DEFINING
·····	A RECORD FOR THE SYSTEM.
DEFTOT	PROCESSES THE DBMS TYPE: TOTAL.
DELDBDF	DELETE ALL DATA FIELD ASSOCIATIONS WITH THE DATABASE
DELDBRT	

おいけずにはい 八大大大大人

	Module	
File		Purpose
	DELDBST	DELETE ALL RECORD SETS' ASSOCIATIONS WITH THE DATABASE
	DELDTNO	DELETE ALL DATA TYPES ASSOCIATED WITH A DOMAIN
	DELMDKC	DELETE ALL KEY CLASSES AND INHERITED KEYS FOR AN ENTITY
	DELMDRC	DELETE ALL RELATION CLASSES FOR AN ENTITY
	DELOAC	DELETE ALL OWNED AND INHERITED ATTRIBUTES
	DEPFROM	GENERATE CREATE RELATION, DESCRIBE COMMANDS IN THE TO-MODEL
	DLMDAUC	DELETE ATTRIBUTE USE CLASSES ASSOCIATED WITH ENTITY
	DOMUSAG	
	DRPAC	DELETE OWNED ATTRIBUTES ASSOCIATED WITH ENTITY
	DRPATT	CONTROLS THE DROPPING OF USER SPECIFIED ATTRIBUTE CLASSES FROM THE C
	DRPDB	CONTROLS THE PROCESSING LOGIC FOR DELETING THE DATA BASE.
	DRPDIV	DELETE DATA ITEM DESCRIPTION TEXTS ASSOCIATED WITH VIEW
	DRPFLD	CONTROLS THE PROCESSING LOGIC FOR DROPPING A DATA FIELD.
	DRPKC	CONTROLS THE PROCESSING LOGIC FOR THE "DROP KEY CLASS".
	DRPMGKM	DELETE MIGRATED KEY CLASSES ASSOCIATED WITH A KEY CLASS
	DRPMGRC	DELETE MIGRATED KEY CLASS MEMBERS ASSOCIATED WITH A KEY CLASS
	DRPMOD	CONTROLS THE PROCESSING LOGIC TO DROP A MODEL.
	DRPRCE	DROP A RELATION CLASS FOR AN ENTITY BEING DROPPED
	DRPSET	CONTROLS THE PROCESSING LOGIC FOR DELETING A SET FROM THE DATABASE.
	ENTKW	SEARCH FOR ENTITY KEYWORD MATCHES WITHIN TWO MODELS
	FCOPATT	GENERATE NDDL COMMANDS FROM A COPY ATTRIBUTE COMMAND

Include File	Module Name	Module Purpose
	FCOPENT	DETERMINE IF COPY ENTITY WITH STRUCTURE OR RELATION
	FILEINS	INSERT DESCRIPTION TEXT INTO CDM
	FINDDOM	RETRIEVE A DOMAIN NUMBER FOR A GIVEN DOMAIN NAME
	FND1MEM	RETRIEVE RECORD TYPE OF MEMBER ASSOCIATED WITH A SET
	FNDACM	DELETE ALL ATTRIBUTE CLASSES FROM A GIVEN MODEL
	FNDASA	VERIFY WHETHER A SET HAS BEEN MAPPED TO AN AUC
	FNDASM	DETERMINES IF AN AUC TO SET TYPE MAPPING EXISTS
	FNDAUC	DELETE ALL ATTRIBUTE USE CLASSES FOR A GIVEN ENTITY CLASS
	FNDECM	DELETES ALL ENTITIES AND ASSOCIATED OBJECTS FOR A GIVEN MODEL
	FNDOAC	DELETES ALL OWNED ATTRIBUTES FOR A GIVEN ENTITY CLASS
	FNDRCM	RETRIEVES ALL RC/RT MAPPINGS FOR A NAMED RECORD
	FRTOREL	DETERMINE IF RELATION EXISTS BETWEEN INTRA-MOD ENTITIES
	GENAKW	RETRIEVE ALL KEYWORDS FOR AN ATTRIBUTE CLASS
	GENDESC	
	GENEKW	SELECT KEYWORD FOR ENTITY AND CREATE KEYWORD PHRASE FOR CRT ENT
	GENENT1	GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.
	GENOA	SELECT OWNED ATT FOR ENTITY AND CREATES OWNED ATT FOR CRT ENT
	GENRKW	SELECT KEYWORDS FOR RELATION CREATES KW PHRASE FOR CREATE RC
	GETACAL	
	GETDBST	RETURN INFORMATION ABOUT THE CURRENT SESSIONS' DATABASE

	Module	
File		Purpose
		****
	GETDOM	RETRIEVES DOMAIN NUMBER BASED ON TAG NAME
		FOR AUC
	<b>GETECAL</b>	VERIFIES THE EXISTANCE OF AN ALIAS FOR AN
		ENTITY
	GETECS	USING ENTITY CLASS VERIFIES CHECK MODEL
		RULES
	GETMAPC	
	GETRCID	GIVEN TAG NO QUERIES CDM FOR INFORMATION ABOUT A
	GEIRCID	RELATION CLASS
	GETRONM	RETRIEVE RELTION CLASS NAME, IND AND DEP
		ENTITY NAMES
	GETRDH	RETURN WITH CURRENT SESSIONS' DATA BASE
		INFO
	ICOPATT	INTERACTIVE COPY ATTRIBUTE, WITH
		KEYWORDS, ALIAS, DESCRS.
	ICOPENT	
	TWDDDAY	ATRIBUTES, KEYWORDS, ALIAS, DESC
	INDFROM	RETRIEVES RELATIONS, DETERMINES IND EC AND GENERATES NDDL
	KEYLOOK	RETRIVES KEYCLASS NAME AND NUMBER BASED ON
	1131200X	TAG NO
	MRGMOD	
	MRGMOD1	COPY MODEL-1 INTO A NEW MODEL (MODEL-3)
	PDFDB	RETRIEVES PROJECT DATA FIELDS FOR A GIVEN
		DATA BASE
	PDFDF	RETRIVES ALL THE PROJ DATA FIELD OR DF
	PDFREC	BEING DROPPED RETRIEVES ALL PORJECT DATA FIELDS FOR A
	PDFREC	GIVEN RECORD
	PDFSRCH	• • • • • • • • • • • • • • • • • • • •
		DATA FIELD
	RACKW2	COMPARES ATTRIBUTE CLASS KEYWORDS
	RECKW2	COMPARES ENTITY CLASS KEYWORDS BETWEEN
		MODELS
	RELKW	CHECKS RC KW BETWEEN MODELS
	RETACKW	
	DEMECARM	CLASS KEYWORDS POPULATES KEYWORD TABLE FOR ENTITY CLASS
	RETEURW	KEYWORDS
		VET MANNO

Include File	Module Name	Module Purpose
	RETRAC1	DETERMINES IF ANY ATTRIBUTE CLASS NAMES MATCH BETWEEN MODELS
	RETRACP	SELECT ATTRIBUTE CLASS NAME USING THE ATTRIBUTE CLASS NUMBER
	RETRCKW	POPULATES THE KEYWORD CDM TABLE FOR RELATION CLASS KEYWORDS
	RETREC1	COMPARES ENTITY CLASS NAMES FOR TWO MODELS
	RETRECP	RETIEVE AN ENTITY CLASS NAME FOR A GIVEN NO. AND NAME TYPE
	RRCKW2	COMPARES RELATION CLASS KEY WORDS FOR TWO MODELS
	SELACNM	RETRIEVE THE PRIMARY NAME FOR ATTRIBUTE CLASS
	SELECNM	RETRIEVE THE FRIMARY NAME FOR AN ENTITY CLASS
	SELIKEY	RETRIEVE ALL INHERITED KEYS FOR A GIVEN EC AND RC
	SELRCNM	RETRIEVE ALL RELATION CLASSES FOR WHICH AN ENTITY IS PART OF
	SELRSET	DELETE ALL ASSOCIATIONS IN THE CDM FOR A SET BEING DROPPED
	SELSTM	DELETES ALL OWNER/MEMBERS OF THE RECORD TYPE BEING DROPPED
	STRINS	INSERT DESCRIPTION TEXT INTO THE CDM
	VERACDT	DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH ATTRIBUTE CLASSES
	VERACNM	RETRIEVE THE DOMAIN FOR AN ATTRIBUTE CLASS
	VERALI	VERIFY THE EXISTENCE OF AN ALIAS NAME FOR AN ENTITY
	VERAREA	VERIFY THE EXISTENCE OF AN AREA FOR A DATA BASE
	VERASM	DETERMINE IF AMY AUC/SET MAPPINGS EXIST FOR AN AUC
	VERATT	VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A MODEL
	VERAUC	VERIFY THE EXISTENCE OF AN ATTRIBUTE USE CLASS
	VERCRC	DETERMINE IF A KEY CLASS IS PART OF A COMPLETE RELATION

	Module	Module
File	Name	Purpose
	VERDB	VERIFY THE EXISTENCE OF A DATA BASE IN THE CDM
	VERDBAS	VERIFY A DATA BASE FOR A GIVEN NAME AND HOST
	VERDF	VERIFY THE EXISTENCE OF A DATA FIELD
	VERDFDT	DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH A PROJECT DF
	VERDFLD	VERIFIES THE EXISTENCE OF A DATA FIELD FOR A GIVEN DATA BASE
	VERDI	VERIFY TEH EXISTENCE OF A DATA ITEM IN A GIVEN VIEW
	VERDIDT	<del></del>
	VERDOM	VERIFY THE EXISTENCE OF A DOMAIN CLASS IN THE CDM
	VERDSL3	RETRIEVES SET ID FOR TOTAL DATA BASE
	VERDSTP	VALIDATE A USER ENTERED DESCRIPTION TYPE VERIFY THE EXISTENCE OF DESC. TEXT FOR A
	VERDSTX	VERIFY THE EXISTENCE OF DESC. TEXT FOR A
	,	GIVEN OBJECT
	VERDT	VERIFY THE EXISTENCE OF A USER DEFINED DATA TYPE
	VERDTD	VERIFY THE EXISTENCE OF A DATA TYPE IN A GIVEN DOMAIN
	VERENT	VERIFY THE EXISTENCE OF AN ENTITY CLASS IN A MODEL
	VERKC	VERIFY THE EXISTENCE OF A KEY CLASS IN A MODEL
	VERKY	verify the existence of a keyword.
	VERKWE	VERIFY THE EXISTENCE OF ENTITY CLASS KEYWORD
	VERKVR	VERIFIES THE EXISTANCE OF A RELATION CLASS KEYWORD.
	VERMOD	verify the existence of a model and return the unique number.
	VERNHA	verify the existence of an attribute class in a model.
	VERNHE	verify the existence of an entity class in a model.
	VEROAC	verify the existence of an owned attribute class for an entity.

Include File	Module Name	Module Purpose
	VERPDF	verify the existence of a
	VERPSB	project_data_field occurrence. VERIFIES THE EXISTANCE OF A PROGRAM STATUS BLOCK FOR AN INS DATABASE
	VERRC VERRCBS	verify the existence of a relation class. verify if there are any mapping to a set
	VERRCC	found in RC_BASED_REC_SET.  verify if the relation class is complete.
	VERRCMP	verify whether a member has been mapped to a relation class.
	VERRCNM VERRCST	VERIFY EXISTANCE OF A RELATION IN A MODEL REPORT WHETHER A RC TO SET MAP EXISTS.
	VERRK	verifies the existance of a key for a record.
	VERRKM	verifies the existance of a data field for a record.
	VERRSET VERRT	
	VERSDT	For a given domain number, return its
	VERSMS	standard data type name. fetch the member count for a given set.
	VERTYP	verifies that a type identification for a data type is valid.
	VERUDTN	verify the existence of a USER DEFINED DATA TYPE (USERDATATYPE)/USDF
	VERVIEW	verify the existence of a view in the system.
	VOMAPS WRTACKW	ENFORCES AUC TO SET MAPPING RULES. RETREIVE AND WRITE ALL THE KEYWORDS
		ASSOCIATD WITH AN ATTRIBUTE CLAS
	WRTALI	RETRIEVE ALL ALIAS NAMES OF AN ATTRIBUTE CLASS.
	WRTANAM	RETRIEVE AND COPY ALL THE NAMES (PRIMARY AND ALIAS) OF AN ATTRIBUTE.
	WRTECKW	RETREIVE AND COPY ALL THE KEYWORDS ASSOCIATED WITH AN ENTITY CLASS.
	WRTENAM	RETRIEVE AND COPY ALL THE ALIAS MAMES OF AN ENTITY CLASS.

Include Hodule Hodule File Home Purpose

PPOODE

INITEES PERFORM ANY SESSION INITIALIZATION

HECESSARY

PROCNED THIS ROUTING IS CALLED TO HAMDLE ALL

PPPARM

INITEES PERFORM ANY SESSION INITIALIZATION

DECESSARY

PROCHED THIS ROUTING IS CALLED TO HANDLE ALL

ECLIST

COPYAC CREATE AN ATTRIBUTE, ASSOCIATE VITH

ENTITY, ADD KEY CLASSES

KEYLOOK RETRIVES KEYCLASS HAME AND NUMBER BASED OF

TAG BO

EEYLIST

ADDEC ADD THE ENTITY NAME TO THE TREE LIST

STRUCTURE

ADDECHN ADD THE BC HAME AND BC NO INTO KEYLIST

ADDECLE ADD KEY INFO TO THE UNEQUADED

KEY CLASS LIST STRUCTURE

ADDEG ADD ECH TAG BUMBER AND MANE TO STRUCTURE

ADDRCEC POPULATES THE RC-DEPEC TABLE FOR ALL

RELATIONS IN THE HODEL

AECROV THIS ROUTINE ADDS A NOW TO THE UNBOUNDED

KEY CLASS LIST

Include File	Nodule Name	Nodule Purpose
	ALLKEY	GENERATES KEY CLASS FOR AN ENTITY
	BLBCLST	
	CHKINN	checks the RC-DEPKC table and determines when a key class can be add
	CHEOMN	checks each of the OWN-ec's key classes
	GENALT1	against the RC-DEPEC LIST. GENERATE AN ALTER ENTITY. ADD KEY CLASS COMMAND
	GETECHN	THIS ROUTINE SEARCHES THE UNBOUNDED
	HEXTEC	
	BEXTRON	
	SELIKEY	GIVEN BC NO RETRIEVE ALL INNERITED KEYS FOR A GIVEN BC AND RC

## EADLET

ATTEV	CONTROLS PROCESSING TO POPULATE KEYWORD
ENTEV	TABLE FOR AUC KEYWORD SEARCH FOR ENTITY KEYWORD NATCHES WITHIN
2467740	TVO NODELS
RACKY2	COMPARES ATTRIBUTE CLASS EXYWORDS
RECKY2	COMPARES ENTITY CLASS KEYVORDS BETVEEN MODELS
RELEV	CHECKS BC EV BETVEEN HODELS
RETACEV	POPULATES KEYWORD TABLE FOR ATTRIBUTE CLASS KEYWORDS
RETECKV	POPULATES KEYWORD TABLE FOR ENTITY CLASS KEYWORDS
RETRCKV	POPULATES THE KEYWORD CDN TABLE FOR RELATION CLASS KEYWORDS
RACKV2	COMPARES RELATION CLASS KEY WORDS FOR TWO MODELS

Include	Module	Module
File	Name	Purpose

### LISTID

ADDMAP	ADD A C8-IS MAPPING
ALTATT	THE ALTER ATTRIBUTE COMMAND PROCESSOR
	ALTERS
ALTMAP	ALTER MAP COMMAND PROCESSOR
ALTEMAP	ALTER A SINGLE MAP
CHGDOM	CHANGE THE DOMAIN FOR AN ALTERED ATTRIBUTE
CPYDES	COMMAND PROCESSOR FOR COPY DESCRIPTION
CRTMAP	CREATE MAP COMMAND PROCESSOR
DESCRE	COMMAND PROCESSOR FOR THE MDDL DESCRIBE
	COMMAND
DRPMAP	CONNAND PROCESSOR FOR THE DROP MAP COMMAND
Drpsnap	DROP A SINGLE MAPPING
HALT	HALT WITH 'COMMIT' OR 'ROLLBACK'.
TXTTYP	DETERMINE SOURCE OF DESCRIPTION TEXT
VEROBJ	VERIFY THAT THE OBJECT EXISTS.
YYERROR	**** PURPOSE NOT FOUND BY STRIPPER ****
TYPARSE	**** PURPOSE NOT FOUND BY STRIPPER ****
TYVRAP	**** PURPOSE NOT FOUND BY STRIPPER ****

### LISTNOS

ADDATT	ASSOCIATES EXISTING ATT VITH ENTITY IN
	CREAT ENTITY CONHAND
ADDKC	CONTROLS PROCESS FOR KEY CLASS CLAUSE FOR
	CREATE/ALTER ENTITY
<b>ADDKA</b>	ADDS KEYWORDS FOR COMMANDS USING "ADD
	KEYWORD" (OPTIONAL)
ADDNIG	PROCESS THE ADD MIGRATESSETCLAUSE
ALTALI	CONTROLS ALTER ALIAS PROCESSING (ALIAS TO
	PRIN OR VICE VERSA)
ALTCARD	PROCESS CARDINALITY FO USER SPECIFIED
	RELATION
ALTDOM	PROGRAM MAME

Taalada	Module	Modulo
	Name	
FILE	Pene	Purpose
	ALTENT	CONTROL PROCESSING FOR ALTER ENTITY CLASS
		COMMAND.
	ALTMOD	CONTROLS PROCESSING FOR ALTER HODEL
		COMMANDS
	ALTREL	CONTROLS PROCESSING LOGIC FOR THE ALTER
		RELATION COMMAND
	BLVVLST	CREATE BUILD VIEW LISTS FOR THE CREATE
		VIEW COMMAND
	CHKCARD	OBTAINS THE USER-SPECIFIED CARDINALTY (IF
		ANY) FOR THE RELATION.
	CHICHOD	DETERMINES WHETHER CERTAIN RULES ARE
		FULFILLED,
	CHBENT	CONROLS THE PROCESSING LOGIC FOR THE
		COMBINE ENTITY COMMAND.
	CHPHOD	CONTROLS THE PROCESSING LOGIC TO COMPARE
		TWO MODELS.
	COPATT	CONTROLS THE PROCESSING LOGIC FOR COPYING
		AN ATTRIBUTE.
	COPENT	CONTROLS THE PROCESSING LOGIC FOR THE COPY
	CDYNOD	ENTITY COMMAND.  CONTROLS THE PROCESSING LOGIC FOR THE COPY
	CPYMOD	MODEL COMMAND.
	CRTALI	CREATES ALIASES FOR AN ENTITY OR
	OWINDI	ATTRIBUTE.
	CRTATT	CONTROLS THE PROCESSING LOGIC FOR CREATING
		AN ATTRIBUTE.
	CRTDOM	PROGRAM MANE CRTDOM
	CRTENT	CONTROL THE PROCESSING LOGIC FOR CREATING
		A NEW ENTITY CLASS.
	CRTMOD	CONTROL THE PROCESSING LOGIC IF CREATING A
		MODEL WITHIN THE SYSTEM.
	CRTREL	CONTROLS THE LOGIC FOR VALIDATING AND
		CREATING A NEW RELATION CLASS.
	CRTVIEW	CONTROLS THE PROCESSING LOGIC FOR THE
		CREATE VIEW COMMAND.
	DEFAREA	
	N990001	IS IDS-II, IDMS AND VAX-1
	DEFCODL	PROCESSES THE DBMS TYPES: VAX-11, IDMS,
		IDS-II.

Include File	Module Name	Nodule Purpose
	DEFDB	CONTROLS THE PROCESSING LOGIC FOR DEFINING A DATABASE TO THE SYSTEM.
	DEFFLD	PROCESSES THE FIELD INFORMATION FOR THE DEFINE RECORD COMMAND.
	DEFINS	PROCESSES THE DBMS TYPE: IMS.
	Definss	PROCESSES THE SEGMENT INFORMATION IF THE DBMS IS INS.
	DEFKEY	PROCESSES THE KEY INFORMATION FOR THE DEFINE RECORD COMMAND.
	DEFORCL	
	DEFREC	A RECORD FOR THE SYSTEM.
	DEFSET	CONTROLS THE PROCESSING LOGIC FOR THE DEFINE SET COMMAND.
	DEFTOT	
	DRPAC	DELETE OWNED ATTRIBUTES ASSOCIATED WITH ENTITY
	DRPALI	
	DRPATT	CONTROLS THE DROPPING OF USER SPECIFIED ATTRIBUTE CLASSES FROM THE C
	DRPDB	CONTROLS THE PROCESSING LOGIC FOR DELETING THE DATA BASE.
	DRPDOH	PROGRAM NAME
	DRPENT	CONTROL THE PROCESSING LOGIC FOR DELETING ENTITIES.
	DRPFLD	CONTROLS THE PROCESSING LOGIC FOR DROPPING A DATA FIELD.
	DRPKC	CONTROLS THE PROCESSING LOGIC FOR THE "DROP KEY CLASS".
	DRPKY	DROP A KEYVORD ASSOCIATION FROM EITHER AN ATTRIBUTE, ENTITY OR RELATI
	DRPKWC	OBTAIN THE USED IDENTIFIED KEYWORD, THEN DROP THEIR ASSOCIATIONS.
	DRPHIG	CONTROLS THE PROCESSING LOGIC FOR THE "DROP HIGRATES" CLAUSE.
	DRPHOD	CONTROLS THE PROCESSING LOGIC TO DROP A HODEL.
	DRPREC	CONTROLS THE PROCESSING LOGIC FOR THE DROP RECORD CONHAND.

Include	Module	Module
File	Name	Purpose
	DRPREL	CONTROLS THE PROCESSING LOGIC FOR THE "DROP RELATION" COMMAND.
	DRPSET	CONTROLS THE PROCESSING LOGIC FOR DELETING A SET FROM THE DATABASE.
	DRPVIEW	DROP THE VIEW.
	EXCFLAG	DETERMINE IF KEYWORDS, ALIASES, DESCR ARE TO BE EXCLUDED
	GETDBST	RETURN INFORMATION ABOUT THE CURRENT SESSIONS' DATABASE
	GETDET	PETCH DATA BASE, RECORD TYPE INFO FROM PARSER LISTS
	GETRON	RETURN WITH CURRENT SESSIONS' DATA BASE INFO
	MKRNLST	FETCH LIST OF REMANE PAIRS FOR NIGRATESSETCLAUSE
	MRCHOD	MERGE TWO IDEF MODELS INTO ONE
	PROCDT	PROGRAM MANE
	ROCHEK	CHECK IF A RELATION CLASS EXISTS FOR A GIVEN MODEL
	RCCHEK 1	CHECK IF A RELATION CLASS EXISTS FOR A GIVEN MODEL
	REMANE	UPDATE EXISTING OBJECT NAME WITH NEW OBJECT NAME

### LISTREL

FRTOREL DETERMINE IF RELATION EXISTS BETWEEN INTRA-MOD ENTITIES

SELECTION RETRIEVE ALL RELATION CLASSES FOR WHICH AN ENTITY IS PART OF

### LISTS

ADDWOORR ADD A TOKEN TO A CORRESPONDING LISTS NEXT ENTRY
ADD CORR ADD A TOKEN TO CORRESPONDING LIST

Include File	Module Mane	Nodule Purpose
	ADD_TO_CH	INCREMENT A LIST COUNTER
	ADD TO LS	ADD A SINGLE TOKEN TO A PARSER OUTPUT LIST
	CPFOOR	ACCESS A TOKEN IN A CORRESPONDING NAMED LIST
	CPFNXT	ACCESS THE WEXT TOKEN IN A PARSER LIST.
	CPFONE	EXTRACT THE FIRST TOKEN FROM THE NAMED
	<b>40.0.44</b>	LIST
	CPFVAL	RETURN THE COUNTER OF LIST1 BASED ON ROW IN LIST2
	INITCHD	INITIALIZATION FOR EACH COMMAND TO BE PROCESSED
	MDDL/MAIN	MAIN PROGRAM FOR THE NDDL COMMAND
		PROCESSOR
	YYERROR	**** PURPOSE NOT FOUND BY STRIPPER ****
	YYPARSE	**** PURPOSE NOT FOUND BY STRIPPER ****
	TYVRAP	**** PURPOSE NOT FOUND BY STRIPPER ****

## MDDL

ADDICORR	ADD A TOKEN TO A CORRESPONDING LISTS NEXT ENTRY
ADD CORR	ADD A TOKEN TO CORRESPONDING LIST
ADD TO CH	INCREMENT A LIST COUNTER
ADD TO LS	ADD A SINGLE TOKEN TO A PARSER OUTPUT LIST
BRAÑCHÍR	PERFORMS MULTI-WAY CALL TO THE
CPFCOR	ACCESS A TOKEN IN A CORRESPONDING MANED LIST
CPFMXT	ACCESS THE NEXT TOKEN IN A PARSER LIST.
CPFONE	EXTRACT THE FIRST TOKEN FROM THE NAMED LIST
CPFVAL	RETURN THE COUNTER OF LIST1 BASED ON ROW IN LIST2
ERRRPT	HANDLE ANY ERROR CODE FROM ORACLE
GETWCKR	GET THE WEXT CHARACTER FROM EITHER STANDARD IMPUT
INITCHD	INITIALIZATION FOR EACH CONHAND TO BE PROCESSED

Include File	Module Name	Module Purpose
	initses	PERFORM ANY SESSION INITIALIZATION NECESSARY
	NDDL/MAIN	NAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR
	PROCEED	THIS ROUTINE IS CALLED TO HANDLE ALL
	TERMSES	ROUTINE TO TERMINATE AN MOOL
	UERROR	ISSUE A MESSAGE TO THE USER, CONSIDERED A
	UVARN	ISSUE A MESSAGE TO THE USER, CONSIDERED A
	YYERROR	**** PURPOSE NOT FOUND BY STRIPPER ****
	<b>YYPARSE</b>	**** PURPOSE NOT FOUND BY STRIPPER ****
	YYWRAP	**** PURPOSE NOT FOUND BY STRIPPER ****
MINN.PYY		

### MDDLEXY

YYERROR	****	PURPOSE	HOT	POUND	BY	STRIPPER	****
YYPARSE	••••	PURPOSE	HOT	POUND	BY	STRIPPER	••••
YYWRAP	• • • •	PURPOSE	HOT	POUND	BY	STRIPPER	••••

## NDDLYAC.INP"

YYERROR	••••	<b>PURPOSE</b>	NO.L	FOUND	BY	STRIPPER	
TYPARSE	• • • •	PURPOSE	HOT	FOUND	BY	STRIPPER	****
YYVRAP	****	PURPOSE	HOT	POUND	BY	STRIPPER	••••

OK

INITSES PERFORM ANY SESSION INITIALIZATION MECESSARY
PROCHD THIS ROUTINE IS CALLED TO MANDLE ALL

ORCLEDA

Include	Module	Module
File	Name	Purpose

CHKKEYS CHECKS TO SEE IF A KEY CLASS FULFILLED RULES.

CHKHOD DETERMINES WHETHER CERTAIN RULES ARE FULFILLED,

GETECS USING ENTITY CLASS VERIFIES CHECK MODEL

USING ENTITY CLASS VERIFIES CHECK MODEL RULES

### RCDEPKC

ADDRCEC	POPULATES THE RC-DEPKC TABLE FOR ALL
	RELATIONS IN THE MODEL
ALLKEY	GENERATES KEY CLASS FOR AN ENTITY
CESTRUC	GENERATES NDDL CONHANDS ON A FILE FOR ALL
	ENTITIES FOR THE STRUCTURE
CHKIMH	checks the RC-DEPEC table and determines
	when a key class can be add
CHKOAN	checks each of the OWN-ec's key classes
	against the RC-DEPKC LIST.
CPYHOD	CONTROLS THE PROCESSING LOGIC FOR THE COPY
	MODEL COMMAND.
INITROL	INITIALISE THE TABLE WHICH STORES A MODELS
	relations
MRGMOD	MERGE TWO IDEF MODELS INTO ONE
<b>MRGMOD</b> 1	COPY MODEL-1 INTO A NEW MODEL (MODEL-5)

## RELTEL

CERELS	GENERATES NDDL COMMANDS ON A FILE FOR ALL ENTITIES IN A RELATION.
CHBENT	CONROLS THE PROCESSING LOGIC FOR THE
CUDFLI	
	COMBINE ENTITY COMMAND.
DEPFROM	GENERATE CREATE RELATION DESCRIBE COMMANDS
	IN THE TO-HODEL
FRTOREL	DETERMINE IF RELATION EXISTS BETWEEN
	INTRA-MOD ENTITIES

س لا

### WDDL COMMAND PROCESSOR Where-include-file-used List

Include	Module	Module
File	Name	Purpose

INDFROM RETRIEVES RELATIONS, DETERMINES IND EC AND GENERATES NDDL

### RENLIST

ADDNIG PROCESS THE ADD HIGRATES...SET..CLAUSE
SEARCHES THE TABLE OF REMAME PAIR LOOKING
FOR AN OLD-TAG ENTRY.

MERMLST FETCH LIST OF REMAME PAIRS FOR
MIGRATES...SET..CLAUSE

### SDLIST

CDP4A VERIFY SURROGATE ENTITY CLASS STRUCTURE VERIFY THE RELATION CLASS STRUCTURE

### SRVRET

**ADDKAY** INSERT AN ATTRIBUTE KEYWORD INSERT AN ENTITY KEYWORD ADDKAE INSERT A RELATION KEYWORD ADDKYR ADDNIG PROCESS THE ADD MIGRATES...SET..CLAUSE ALLVIEW CREATE AN ES-CS-MAPPING FOR AUC TO DATA ITEM STORE ALL KEY CLASS INFO FOR AN ENTITY IN BLKCL1 A LIST SELECT AND STORE KEY CLASS INFO FOR A BLKCLST GIVEN ENTITY CHECK IF ATTRIBUTES HAVE BEEN CREATED CHKATT ACCORDING TO STANDARDS CHKAUCV CHECK EXISTENCE OF AUC TO SET NAPPING CHECK IF RELATIONS HAVE BEEN CREATED CHKREL ACCORDING TO STANDARDS

Include File	Module Name	Module Purpose
	CHBACAL	GENERATE CREATE ALIAS ATTRIBUTE AND ALIAS DESC TEXT COMMANDS
	CMBALI	GENERATE CREATE ALIAS ENTITY COMMAND
	CHBEKA	GENERATE ADD KEYWORD CLAUSE FOR ENTITY KEYWORDS
	CHBOA	GENERATE COMMANDS FOR ATTRIBUTES, ITS KEYWORDS, ALIAS, DESC
	CMBRKV	SELECT AND GENERATE RELATION CLASS KEYWORDS
	COPYAC	CREATE AN ATTRIBUTE, ASSOCIATE WITH ENTITY, ADD KEY CLASSES
	DELDEDF	THE DATABASE
	DELDERT	THE DATABASE
	DELDEST	THE DATABASE
	DELDTNO	DONAIN
	DELMDEC	FOR AN ENTITY
		DELETE ALL RELATION CLASSES FOR AN ENTITY
	DELOAC	
	DEPFRON	IN THE TO-MODEL
	DEMDAUC	WITH ENTITY
	DOMUSAG	VIEWS , DATAFIELDS , ATTRIBUTES
	DRPAC	DELETE OWNED ATTRIBUTES ASSOCIATED WITH ENTITY
	DRPDIV	DELETE DATA ITEM DESCRIPTION TEXTS ASSOCIATED WITH VIEW
	DRPNGKH	WITH A KEY CLASS
	DRPMGRC	DELETE HIGRATED KEY CLASS NEMBERS ASSOCIATED WITH A KEY CLASS
	DRPRCE	DROP A RELATION CLASS FOR AN ENTITY BEING DROPPED

Include File	Module Mame	Module Purpose
	POOPATT	GENERATE HDDL COMMANDS FROM A COPY ATTRIBUTE COMMAND
	PINDDOM	RETRIEVE A DOMAIN NUMBER FOR A GIVEN DOMAIN MANE
	PHD1 NEM	RETRIEVE RECORD TYPE OF MEMBER ASSOCIATED WITH A SET
	PHDACH	DELETE ALL ATTRIBUTE CLASSES PROM A GIVEN MODEL
	PHDASA	VERIFY WHETHER A SET HAS BEEN HAPPED TO AN AUC
	PHDASH	DETERMINES IF AN AUC TO SET TYPE MAPPING EXISTS
	PHDAUC	DELETE ALL ATTRIBUTE USE CLASSES FOR A GIVEN ENTITY CLASS
	PHDECH	DELETES ALL ENTITIES AND ASSOCIATED OBJECTS FOR A GIVEN NODEL
	PWDOAC	DELETES ALL OWNED ATTRIBUTES FOR A GIVEN ENTITY CLASS
	PHENCH	RETRIEVES ALL NC/RT HAPPINGS FOR A NAMED RECORD
	GENYKA	RETRIEVE ALL KEYWORDS POR AN ATTRIBUTE CLASS
	GENDESC	GIVEN OBJECT TYPE AND NO
	GENEKA	SELECT KEYWORD FOR ENTITY AND CREATE KEYWORD PHRASE FOR CRT ENT
	GENOA	SELECT OWNED ATT FOR ENTITY AND CREATES OWNED ATT FOR CRT ENT
	GENRIEV	SELECT KEYVORDS FOR RELATION CREATES EV PHRASE FOR CREATE RC
	GETACAL	VERIFY THE EXISTANCE OF AN ALIAS FOR AN ATTRIBUTE
	GETDON	POR AUC VERIFIES THE EXISTANCE OF AN ALIAS FOR AN
	GETECS	ENTITY USING ENTITY CLASS VERIFIES CHECK NODEL
	GETHAPC	RULES
	US I HAPU	GIVEN TAG NO

Nodule Name	
CETACID	4 · · · · · · · · · · · · · · · ·
	RELATION CLASS
INDPROM	RETRIEVES RELATIONS, DETERMINES IND EC AND GENERATES MODL
KEYLOOK	RETRIVES KETCLASS NAME AND NUMBER BASED ON
	TAG NO
PDFDB	RETRIEVES PROJECT DATA FIELDS FOR A GIVEN
	DATA BASE
PDFDF	RETRIVES ALL THE PROJ DATA FIELD OR DF
	BEING DROPPED
PDFREC	RETRIEVES ALL PORJECT DATA FIELDS FOR A GIVEN RECORD
POPERCH	
	DATA FIELD
RACEV2	COMPARES ATTRIBUTE CLASS KEYWORDS
RECKY2	
	NODELS
relky	CHECKS RC KV BETVEEN HODELS
RETACKY	POPULATES KEYWORD TABLE FOR ATTRIBUTE
	CLASS KEYWORDS
RETECKY	POPULATES KEYWORD TABLE FOR ENTITY CLASS KEYWORDS
RETRACI	
WE 1 1000 1	NATCH BETWEEN MODELS
RETRACP	
	ATTRIBUTE CLASS NUMBER
RETRCKY	POPULATES THE KEYWORD CDH TABLE FOR
	RELATION CLASS KEYWORDS
RETRECI	COMPARES ENTITY CLASS NAMES FOR TWO HODELS
RETRECP	RETIEVE AN ENTITY CLASS NAME FOR A GIVEN NO. AND MANE TYPE
RRCKV2	COMPARES RELATION CLASS KEY WORDS FOR TWO
MATCH WA	MODELS
SELACION	RETRIEVE THE PRIMARY NAME FOR ATTRIBUTE
	CLASS
SELECHN	RETRIEVE THE PRIMARY NAME FOR AN ENTITY
	CLASS
SELIKEY	
	AND RC

Include File	Module Name	
1116	name	Purpose
	SELRCNM	RETRIEVE ALL RELATION CLASSES FOR WHICH AN ENTITY IS PART OF
	SELRSET	DELETE ALL ASSOCIATIONS IN THE CDM FOR A SET BEING DROPPED
	SELSTM	DELETES ALL OWNER/MEMBERS OF THE RECORD TYPE BEING DROPPED
		DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH ATTRIBUTE CLASSES
	VERACNM	RETRIEVE THE DOMAIN FOR AN ATTRIBUTE CLASS
	VERALI	AN ENTITY
	VERAREA	VERIFY THE EXISTENCE OF AN AREA FOR A DATA BASE
	VERASH	DETERMINE IF AMY AUC/SET MAPPINGS EXIST FOR AN AUC
	VERATT	VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A MODEL
	VERAUC	VERIFY THE EXISTENCE OF AN ATTRIBUTE USE CLASS
	VERCEC	DETERMINE IF A KEY CLASS IS PART OF A COMPLETE RELATION
	VERDS	VERIFY THE EXISTENCE OF A DATA BASE IN THE CDM
	VERDBAS	VERIFY A DATA BASE FOR A GIVEN NAME AND HOST
	VERDF	VERIFY THE EXISTENCE OF A DATA FIELD
	VERDFDT	DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH A PROJECT DF
	VERDFLD	A GIVEN DATA BASE
	VERDI	VERIFY TEH EXISTENCE OF A DATA ITEM IN A GIVEN VIEW
	VERDIDT	DETERMINE IF A DATA TYPE IS ASSOCIATED WITH ANY DATA ITEMS
	AERDON	VERIFY THE EXISTENCE OF A DOMAIN CLASS IN THE CDM
	VERDEL3	RETRIEVES SET ID FOR TOTAL DATA BASE
	VERDETP	VALIDATE A USER ENTERED DESCRIPTION TYPE
	VERDETI	VERIFY THE EXISTENCE OF DESC. TEXT FOR A GIVEN OBJECT

Include File	Module Name	Nodule Purpose
	VERDT	VERIFY THE EXISTENCE OF A USER DEFINED DATA TYPE
	VERDTD	VERIFY THE EXISTENCE OF A DATA TYPE IN A GIVEN DOMAIN
	VERENT	VERIFY THE EXISTENCE OF AN ENTITY CLASS IN A MODEL
	VERKC	VERIFY THE EXISTENCE OF A KEY CLASS IN A MODEL
	VERKY	verify the existence of a keyword.
	VERKVE	VERIFY THE EXISTENCE OF ENTITY CLASS KEYWORD
	VERKVR	VERIFIES THE EXISTANCE OF A RELATION CLASS KEYWORD.
	VERMOD	verify the existence of a model and return the unique number.
	VERMA	verify the existence of an attribute class in a model.
	VERNME	verify the existence of an entity class in a model.
	VEROAC	verify the existence of an owned attribute class for an entity.
	VERPDF	verify the existence of a project_data_field occurrence.
	VERPSB	VERIFIES THE EXISTANCE OF A PROGRAM STATUS BLOCK FOR AN INS DATABASE
	VERRC	verify the existence of a relation class.
	VERRCBS	verify if there are any mapping to a set found in RC_BASED_REC_SET.
	VERRCC	verify if the relation class is complete.
	VERRCMP	verify whether a member has been mapped to a relation class.
	VERRCNM	VERIFY EXISTANCE OF A RELATION IN A MODEL
	VERRCST	· · · · · · · · · · · · · · · · · · ·
	VERRK	verifies the existance of a key for a record.
	VERRKM	verifies the existance of a data field for a record.
	VERRSET	VERIFIES THE EXISTANCE OF A SET
	VERRT	VERIFIES THE EXISTANCE OF A RECORD TYPE

### FREE COMMAND PROCESSES Whore-include-file-wood List

Include		Hedule
Pile	Dens	Purpose
*****	****	
	VERSOT	For a given densin number, return its standard data type name.
	VERGUS	fotch the member count for a given set
	VENTYP	verifies that a type identification for a data type is valid.
	VERNOTE	verify the existence of a veek BETIMED BATA TYPE (VOCADATATYPE)/VOOF
	ABBAIBA	verify the existence of a view in the system.
	VESLAPS	ENFORCES AND TO SET MAPPING BULGS
	ABSYCEA	AGGGLATO VITE AS ATTRIBUTE CLAS
	<b>VOTALI</b>	RETRIEVE ALL ALIAS NAMES OF AN ATTRIEVTS
	VETABAN	RETRIEVE AND COPT ALL THE NAMES (PRIMART AND ALIAS) OF AN ATTRIBUTE
	VINTECTIV	ASSOCIATED VITE AN ENTITY CLASS
	VRTEBAN	

# STDIO

CLSFIL	THIS ROUTINE CLOSES AN OUTPUT FILE THE
	FILE VILL
GETHOR	GET THE HELY CHARACTER PROH EITHER
	STANDARD IMPUT
vetlin	THIS ROUTINE WRITES A MODL COMMAND LINE
	(80 CHARACTERS)
TYPERSOR	"" PURPOSE NOT POUND BY STRIPPER ""
TYPARGE	"" PURPOSE NOT POUND BY STRIPPER ""
YYWRAD	**** PERSONS MOT POWER BY STRIPPER ****

## STOTYP

ADDNAP ADD A CB IS MAPPING

CONTRACTOR CONTRACTOR

Include File	Hedule Hear	Nedule Purpose
	•••••	
	ALTATT	THE ALTER ATTRIBUTE COMMAND PROCESSOR
	ALTHAP	
	ALTERAP	
	CHEROM	
	CHELOOP	CHECK LOOP DEPRINDENCY AND FOR TOPS AND SOFFORMS
	CETTIAP	CREATE HAP COMMAND PROCESSOR
	DELANC	DELETE INNERITED_ATT_USE, EST CLASS NEMBER.
	DELAVOK	DELÎTE ATTRIBUTE DES CLASS KEY MEMBER GIVEN
	DELATOR	DELETE HIGHATING KEY CLASS
	DOLATEC	DELETE SMPTY EST CLASSES GIVEN THE MODEL
	BOLTHY	DELETE DESCRIPTION TEXT GIVEN THE OBJECT TYPE.
	pasche	COMMAND PROCESSOR FOR THE MODE DESCRIBE
	DLAIGNC	DELETE HIGHATING KEY CLASS
	DRPNAP	COMMAND PROCESSOR FOR THE DROP HAP COMMAND
	DRPOMAP	DROP A SINGLE MAPPING
	<b>GETPCHI</b>	GET THE MENT CHARACTER PROM BITHER STANDARD IMPUT
	LOADESC	
	MAPADY	
	MAPAGET	NAP AN ANC TO A SET
	MAPRC	MAP A MELATION CLASS TO A SET
	RODGOC	FFORE DESCRIPTION ON THE COM
	TETTTP	DETERMINE SOURCE OF DESCRIPTION TEXT
	ABBOBL	VERIFY THAT THE OBJECT BEISTS

### AM I GENO

ADDEC CONTROLS PROCESS FOR KEY CLASS CLAUSE FOR CREATE ALTER ENTITY
ADDEV ADDE REYMORDS FOR COMMANDS UNING ALSE
KEYMORD (OPTIONAL)

Include File	Nodule Name	Nodule Purpose
	ADDNIG ADDOAC	PROCESS THE ADD HIGHATESSETCLAUSE ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND AS ATT USE CLASS
	ALTHOD	CONTROLS PROCESSING FOR ALTER NODEL
	BLDATT	CREATE ATT CLASS AND ATT NAME FOR A MODEL (CREATE/COPY ATT)
	BLDATTI	CREATES ATT CLASS AND ATT HAME FOR A HODEL(CREATE/COPY ATT)
	CMCDOM	CHANGE THE DONAIS FOR AN ALTERED ATTRIBUTE
	CRTATT	CONTROLS THE PROCESSING LOGIC FOR CREATING AN ATTRIBUTE.
	CRTDON	PROGRAM MANK CRYDON
	CRTENT	CONTROL THE PROCESSING LOGIC FOR CREATING A NEW SHTITY CLASS.
	CHTHOD	CONTROL THE PROCESSING LOGIC IF CREATING A MODEL VITHIN THE STOTEM
	CRTREL	CONTROLS THE LOGIC FOR VALIDATING AND CREATING A NEW RELATION CLASS
	CELATEA	CONTROLS THE PROCESSING LOGIC FOR THE CREATE VIEW COMMAND
	DEFDS	CONTROLS THE PROCESSING LOGIC FOR DEFINING A DATABASE TO THE SYSTEM
	DEFSET	CONTROLS THE PROCESSING LOGIC FOR THE DEFINE SET CONNAMD
	DELACC	DELETE IMMERITED ATT VSE
	DELDEDT	DELETE ALL DATA FIELD ASSOCIATIONS VITH
	DELDERT	DELETE ALL RECORD TYPE ASSOCIATIONS VITH
	DELDOST	DELETE ALL RECORD SETS ASSOCIATIONS VITH THE DATABASE
	DELDTLE	CONTROLS THE DETERMINE OF LISTS FIELDS
	DELOTEO	DELETE ALL DATA TYPES ASSOCIATED VITH A
	DELIDEC	PELSTE ALL REY CLASSES AND INNERITED REYS
	DELICOC	DELETE ALL RELATION CLASSES FOR AN ENTITY
	DELATOR	DELETT HIGHATING BEY CLASS

Include File	Hedule Hane	Hedule Purpose
	DELATEC	DELETE SMPTY KEY CLASSES GIVEN THE MODEL NAMES
	DEMEASC	DELETE ATTRIBUTE USE CLASSES ASSOCIATED VITE BUTITY
	DLHIGHC	DELETE HIGHATING ERY CLASS
	DEPATT	CONTROLS THE EMOPPING OF VEER SPECIFIED ATTRIBUTE CLASSES FROM THE C
	28708	CONTROLS THE PROCESSING LOGIC FOR DELETING THE DATA BASE.
	DRPDIV	DELETE DATA ITEM DESCRIPTION TEXTS ASSOCIATED VITE VIEV
	DRPDON	PROGRAM NAME
	DRPENT	CONTROL THE PROCESSING LOGIC FOR DELETING
	DAPPLD	CONTROLS THE PROCESSING LOGIC FOR DROPPING A DATA FIELD
	DRPEC	CONTROLS THE PROCESSING LOGIC FOR THE
	BRPENC	OSTAIN THE USED IDENTIFIED KEYVORD, THEN
	DRPHOD	CONTROLS THE PROCESSING LOGIC TO DROP A
	DRPROE	DROP A RELATION CLASS FOR AN ENTITY BEING
	DRPREC	CONTROLS THE PROCESSING LOGIC FOR THE DROP
	DOPAGL.	CONTROLS THE PROCESSING LOGIC FOR THE
	DRPSST	OSUTROLS THE PROCESSING LOGIC FOR DELETING A SET PRON THE DATABASE
	DEPVIEW	DROP THE VIEW
	PEDACH	DELETE ALL ATTRIBUTE CLASSES PRON A GIVEN
	PUDBON	DELETES ALL SETITIES AND ASSOCIATED OBJECTS POR A GIVEN MODEL
	1007297	INTERACTIVE COPY ENTITY WITH
		ATREISUTES EXTUGEDS ALIAS DESC
	1860714	
	196D1	INSERT A RECORD INTO IMTA ITEM

and the contract of the contra

File	Page	Purpose
		****
	18007	INSERT A RECORD INTO USER_DEF_DATA_TYPE
	INCOTYP	INCOME A RECORD INTO THE RECORD TYPE
	EBYLOOK	RETRIVES RETCLASS NAME AND NUMBER BASED ON TAG NO
	861.0677	DELETE ALL ASSOCIATIONS IN THE CON FOR A SET BEING DROPPED
	BOLOTH	DELETES ALL OWER/HENSERS OF THE RECORD

#### AADI

BLVVLOT	CREATE SUILD VIEW LISTS FOR THE CREATE
	VISV COMMAND
CETAIEA	CONTROLS THE PROCESSING LOGIC FOR THE
	CREATE VIEW COMMAND.
PIPRON	CREATE A VIEW WEIRG A SINGLE ENTITY CLASS
	BS -OS - MAPPING)
PNFRON	CREATE A VIEW PRON NULTIPLE ENTITY CLASSES
PHOPRON	PROCESS A VIEW CONNAMO FOR MULTIPLE ENTITY
	CLASSES
REMY 1 SV	POPULATE VIEW DEFINITION AND RE-CE-MAPPING

#### VUTTON

BLVVLST	CREATE SWILD VIEW LISTS FOR THE CREATE
	AIBA COMPAND
CETAIRA	CONTROLS THE PROCESSING LOGIC FOR THE
	CHEVAR ATEA COMMUND
Bipaclt	EXPAND RELATION LIST TO INCLUDE DEP AND
	IND ENTIFIES
BEPRTLT	EXPAND THE RETRIEVE LIST (SELECT FROM )
PIPROH	CREATE A VIEW USING A SINGLE ENTITY CLASS(
	BB-OB-MAPPING)
PHFRON	CREATE A VIEW PRON MULTIPLE ENTITY CLASSES
REMY I EV	POPULATE VIEW DEFINITION AND RE-CE-MAPPING

Include	Nedule	Module
P110	Name	Purpose

#### WHO

BLEBORC	CONTROLS PROCESS TO BUILD SEC-RC COMPONENTS
BLVVLST	CREATE BUILD VIEW LISTS FOR THE CREATE VIEW COMMAND
CETATEA	CONTROLS THE PROCESSING LOGIC FOR THE CREATE VIEW CONNAND.
BEPROLT	EXPAND RELATION LIST TO INCLUDE DEP AND IND ENTITIES
PMFRON	CREATE A VIEW PRON MULTIPLE ENTITY CLASSES
PHOPRON	PROCESS A VIEW COMMAND FOR MULTIPLE ENTITY
	CLASSES
<b>SENAIEA</b>	POPULATE VIEW DEFINITION AND RE-CS-MAPPING
VERRELS	VERIFY THE RELATION CLASS STRUCTURE

# VVRETR

BLVVLST	CREATE BUILD VIEW LISTS FOR THE CREATE VIEW COMMAND
CRTVIEW	CONTROLS THE PROCESSING LOGIC FOR THE CREATE VIEW CONHAND.
EXPRILT	EXPAND THE RETRIEVE LIST (SELECT FROM)
PIPRON	CREATE A VIEW USING A SINGLE ENTITY CLASS( ES-CS-HAPPING)
PHFROM	CREATE A VIEW PRON MULTIPLE ENTITY CLASSES
PHOPROM	PROCESS A VIEW COMMAND FOR MULTIPLE ENTITY CLASSES
RENVIEW	POPULATE VIEW DEFINITION AND ES-CS-MAPPING
BNAIEA	CREATE ES-CS-NAPPING FOR USER SPECIFED RETRIEVE LIST

PS 620141100 1 November 1985

# 3.10.6 Where External Routine Used List

The following lists each external function or routine listed in 5.10.5 and all the documented modules which call it. The purpose of each module is listed as well.

System	Module	Module
Module	Mame	Purpose

**ADDKAY** 

#### **ADDFRM**

INITSES PERFORM ANY SESSION INITIALIZATION NECESSARY

### ALLOC

ADDEC ADD THE ENTITY NAME TO THE TREE LIST STRUCTURE

ADDECNM ADD THE EC\_NAME AND EC\_NO INTO KEYLIST ADDKCLS ADD KEY INFO TO THE UNBOUNDED KEY\_CLASS\_LIST STRUCTURE

ADDKG ADD KCM\_TAG NUMBER AND NAME TO STRUCTURE STORE A AVAILABLE NO OF A POOL NO BACK TO NO LINKED

INSERT AN ATTRIBUTE KEYWORD

### **ERRPRO**

ADDKWE INSERT AN ENTITY KEYWORD INSERT A RELATION KEYWORD ADDKWR PROCESS THE ADD MIGRATES...SET..CLAUSE ADDMIG ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND AS ADDOAC ATT USE CLASS ADD A AVAILABLE NO OF A POOL NO BACK TO NO ADDRNUM LINKED ADD TO CHTINCREMENT A LIST COUNTER ADD TO LSTADD A SINGLE TOKEN TO A PARSER OUTPUT LIST ALLKEY GENERATES KEY CLASS FOR AN ENTITY CREATE AN ES-CS-MAPPING FOR AUC TO DATA ALLVIEW ITEM CONTROLS PROCESSING TO POPULATE KEYWORD ATTKW TABLE FOR AUC KEYWORD STORE ALL KEY CLASS INFO FOR AN ENTITY IN BLKCL1 A LIST SELECT AND STORE KEY CLASS INFO FOR A BLKCLST GIVEN ENTITY PERFORMS MULTI-WAY CALL TO THE BRANCHR VERIFY SURROGATE ENTITY CLASS STRUCTURE CDP4A

System Module

Module Mame	Module Purpose
CERELS	GENERATES NDDL COMMANDS ON A FILE FOR ALL ENTITIES IN A RELATION.
CESTRUC	GENERATES MDDL COMMANDS ON A FILE FOR ALL ENTITIES FOR THE STRUCTURE
CHKATT	CHECK IF ATTRIBUTES HAVE BEEN CREATED ACCORDING TO STANDARDS
CHKAUCV	CHECK EXISTENCE OF AUC TO SET MAPPING
CHKKEYS	
CHKMOD	DETERMINES WHETHER CERTAIN RULES ARE FULFILLED.
CHKREL	CHECK IF RELATIONS HAVE BEEN CREATED ACCORDING TO STANDARDS
CMBACAL	GENERATE CREATE ALIAS ATTRIBUTE AND ALIAS DESC TEXT COMMANDS
CMBALI	GENERATE CREATE ALIAS ENTITY COMMAND
CHBEKW	GENERATE ADD KEYWORD CLAUSE FOR ENTITY KEYWORDS
CMBENT	CONROLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND.
CMBOA	GENERATE COMMANDS FOR ATTRIBUTES, ITS KEYWORDS, ALIAS, DESC
CMBRKW	SELECT AND GENERATE RELATION CLASS KEYWORDS
CMPMOD	CONTROLS THE PROCESSING LOGIC TO COMPARE TWO MODELS.
COPATT	CONTROLS THE PROCESSING LOGIC FOR COPYING AN ATTRIBUTE.
COPENT	CONTROLS THE PROCESSING LOGIC FOR THE COPY ENTITY COMMAND.
COPYAC	CREATE AN ATTRIBUTE, ASSOCIATE WITH ENTITY, ADD KEY CLASSES
CRTMOD	CONTROL THE PROCESSING LOGIC IF CREATING A MODEL WITHIN THE SYSTEM.
DEFAREA	PROCESSES THE AREA INFORMATION IF THE DBMS IS IDS-II, IDMS AND VAX-1
DEFCODL	
DEFDB	CONTROLS THE PROCESSING LOGIC FOR DEFINING A DATABASE TO THE SYSTEM.

System Module

Nodule Name	Nodule Purpose
DEFFLD	PROCESSES THE FIELD INFORMATION FOR THE DEFINE RECORD COMMAND.
Depins	PROCESSES THE DEMS TYPE: INS.
DEFINSS	PROCESSES THE SEGMENT INFORMATION IF THE DEMS IS INS.
DEPKEY	PROCESSES THE KEY INFORMATION FOR THE DEFINE RECORD COMMAND.
DEFORCL	PROCESSES THE DBMS TYPE: ORACLE.
DEPREC	CONTROLS THE PROCESSING LOGIC FOR DEFINING A RECORD FOR THE SYSTEM.
DEFTOT	PROCESSES THE DBMS TYPE: TOTAL.
DELDEDF	DELETE ALL DATA FIELD ASSOCIATIONS WITH THE DATABASE
DELDERT	DELETE ALL RECORD TYPE ASSOCIATIONS WITH THE DATABASE
DELDBST	DELETE ALL RECORD SETS' ASSOCIATIONS WITH THE DATABASE
DELDTNO	DELETE ALL DATA TYPES ASSOCIATED WITH A DOMAIN
DELMDKC	DELETE ALL KEY CLASSES AND INHERITED KEYS FOR AN ENTITY
DELMDRC	DELETE ALL RELATION CLASSES FOR AN ENTITY
DELOAC	DELETE ALL OWNED AND INHERITED ATTRIBUTES
DEPFROM	GENERATE CREATE RELATION, DESCRIBE COMMANDS IN THE TO-MODEL
DLMDAUC	DELETE ATTRIBUTE USE CLASSES ASSOCIATED WITH ENTITY
DOMUSAG	DETERMINE IF DOMAIN ASSOCIATED WITH VIEWS, DATAFIELDS, ATTRIBUTES
DRPAC	DELETE OWNED ATTRIBUTES ASSOCIATED WITH ENTITY
DRPATT	CONTROLS THE DROPPING OF USER SPECIFIED ATTRIBUTE CLASSES FROM THE C
DRPDB	CONTROLS THE PROCESSING LOGIC FOR DELETING THE DATA BASE.
DRPDIV	
DRPFLD	CONTROLS THE PROCESSING LOGIC FOR DROPPING A DATA FIELD.

Module

System Module

Module

MOTETA	Modera
Name	Purpose
DRPEC	CONTROLS THE PROCESSING LOGIC FOR THE "DROP KEY CLASS".
DRPMGKM	DELETE MIGRATED KEY CLASSES ASSOCIATED WITH A KEY CLASS
DRPMGRC	DELETE MIGRATED KEY CLASS MEMBERS ASSOCIATED WITH A KEY CLASS
DRPMOD	CONTROLS THE PROCESSING LOGIC TO DROP A MODEL.
DRPRCE	DROP A RELATION CLASS FOR AN ENTITY BEING DROPPED
DRPSET	CONTROLS THE PROCESSING LOGIC FOR DELETING A SET FROM THE DATABASE.
ENTKV	SEARCH FOR ENTITY KEYWORD MATCHES WITHIN TWO MODELS
ERRRPT	HANDLE ANY ERROR CODE FROM ORACLE
FCOPATT	
POUPATT	ATTRIBUTE COMMAND
FCOPENT	DETERMINE IF COPY ENTITY WITH STRUCTURE OR RELATION
FILEINS	INSERT DESCRIPTION TEXT INTO CDM
FINDDOM	RETRIEVE A DOMAIN NUMBER FOR A GIVEN
FIRDDON	DOMAIN NAME
PND1 MEM	RETRIEVE RECORD TYPE OF MEMBER ASSOCIATED WITH A SET
FNDACM	DELETE ALL ATTRIBUTE CLASSES FROM A GIVEN MODEL
FNDASA	VERIFY WHETHER A SET HAS BEEN MAPPED TO AN AUC
FNDASM	DETERMINES IF AN AUC TO SET TYPE MAPPING
	EXISTS
FNDAUC	DELETE ALL ATTRIBUTE USE CLASSES FOR A GIVEN ENTITY CLASS
FNDECM	DELETES ALL ENTITIES AND ASSOCIATED
	OBJECTS FOR A GIVEN MODEL
FNDOAC	DELETES ALL OWNED ATTRIBUTES FOR A GIVEN ENTITY CLASS
FNDRCM	RETRIEVES ALL RC/RT MAPPINGS FOR A NAMED
	RECORD
FRTOREL	DETERMINE IF RELATION EXISTS BETWEEN
	INTRA-MOD ENTITIES

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System Module	Name	Module Purpose
	GENAKA	RETRIEVE ALL KEYWORDS FOR AN ATTRIBUTE CLASS
	GENDESC	GENERATED NDDL DESCRIBE COMMANDS FOR A GIVEN OBJECT TYPE AND NO
	GENEKA	SELECT KEYWORD FOR ENTITY AND CREATE KEYWORD PHRASE FOR CRT ENT
	GENENT 1	GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.
	GENOA	SELECT OWNED ATT FOR ENTITY AND CREATES OWNED ATT FOR CRT ENT
	GENRKW	SELECT KEYWORDS FOR RELATION CREATES KW PHRASE FOR CREATE RC
	GETACAL	VERIFY THE EXISTANCE OF AN ALIAS FOR AN ATTRIBUTE
	GETDBST	RETURN INFORMATION ABOUT THE CURRENT SESSIONS' DATABASE
	GETDOM	RETRIEVES DOMAIN NUMBER BASED ON TAG NAME FOR AUC
	GETECAL	VERIFIES THE EXISTANCE OF AN ALIAS FOR AN ENTITY
	GETECS	USING ENTITY CLASS VERIFIES CHECK MODEL RULES
	GETMAPC	SELECT ALL PROJECT DATA FIELDS MATCHING A GIVEN TAG NO
	GETNNUM	
	GETRCID	QUERIES CDM FOR INFORMATION ABOUT A RELATION CLASS
	GETRONM	RETRIEVE RELTION CLASS NAME, IND AND DEP ENTITY NAMES
	GETRDH	RETURN WITH CURRENT SESSIONS' DATA BASE INFO
	ICOPATT	INTERACTIVE COPY ATTRIBUTE, WITH KEYWORDS, ALIAS, DESCRS.
	ICOPENT	INTERACTIVE COPY ENTITY WITH ATRRIBUTES, KEYWORDS, ALIAS, DESC
	INDFROM	
	INITSES	PERFORM ANY SESSION INITIALIZATION NECESSARY

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MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A

System Module	Module Name	Module Purpose
	KEYLOOK	RETRIVES KEYCLASS MAME AND MUMBER BASED ON TAG NO
	MRGMOD	MERGE TWO IDEF MODELS INTO ONE
	MRGMOD1	
	PDFDB	RETRIEVES PROJECT DATA FIELDS FOR A GIVEN DATA BASE
	PDFDF	RETRIVES ALL THE PROJ DATA FIELD OR DF BEING DROPPED
	PDFREC	RETRIEVES ALL PORJECT DATA FIELDS FOR A GIVEN RECORD
	PDFSRCH	DETERMINES IF A TAG HAS A PRIMARY MAP TO DATA FIELD
	PRCCMD	THIS ROUTINE IS CALLED TO HANDLE ALL
	RACKV2	COMPARES ATTRIBUTE CLASS KEYWORDS
	RECKV2	COMPARES ENTITY CLASS KEYVORDS BETVEEN MODELS
	RELKV	CHECKS RC KV BETVEEN HODELS
	RETACKV	POPULATES KEYWORD TABLE FOR ATTRIBUTE CLASS KEYWORDS
	RETECKV	POPULATES KEYWORD TABLE FOR ENTITY CLASS KEYWORDS
	RETRAC1	DETERMINES IF ANY ATTRIBUTE CLASS NAMES MATCH BETWEEN MODELS
	RETRACP	SELECT ATTRIBUTE CLASS NAME USING THE ATTRIBUTE CLASS NUMBER
	RETRCKW	POPULATES THE KEYWORD CDM TABLE FOR RELATION CLASS KEYWORDS
	RETREC1	
	RETRECP	RETIEVE AN ENTITY CLASS NAME FOR A GIVEN NO. AND NAME TYPE
	RRCKW2	COMPARES RELATION CLASS KEY WORDS FOR TWO MODELS
	SELACNM	RETRIEVE THE PRIMARY NAME FOR ATTRIBUTE CLASS
	SELECNM	RETRIEVE THE PRIMARY NAME FOR AN ENTITY CLASS
	SELIKEY	RETRIEVE ALL INHERITED KEYS FOR A GIVEN EC
	SELRCNM	

System Module	Module Name	Module Purpose
	SELRSET	DELETE ALL ASSOCIATIONS IN THE CDM FOR A SET BEING DROPPED
	SELSTM	DELETES ALL OWNER/MEMBERS OF THE RECORD TYPE BEING DROPPED
	STRINS	INSERT DESCRIPTION TEXT INTO THE CDM
	VERACDT	DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH ATTRIBUTE CLASSES
	VERACNM	
	VERALI	VERIFY THE EXISTENCE OF AN ALIAS NAME FOR AN ENTITY
	VERAREA	VERIFY THE EXISTENCE OF AN AREA FOR A DATA BASE
	VERASM	DETERMINE IF AMY AUC/SET MAPPINGS EXIST FOR AN AUC
	VERATT	VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A MODEL
	VERAUC	VERIFY THE EXISTENCE OF AN ATTRIBUTE USE CLASS
	VERCRC	DETERMINE IF A KEY CLASS IS PART OF A COMPLETE RELATION
	VERDB	VERIFY THE EXISTENCE OF A DATA BASE IN THE CDM
	VERDBAS	VERIFY A DATA BASE FOR A GIVEN NAME AND HOST
	VERDF	VERIFY THE EXISTENCE OF A DATA FIELD
	VERDFDT	DETERMINE ANY ASSOCIATIONS OF A DATA TYPE WITH A PROJECT DF
	VERDFLD	VERIFIES THE EXISTENCE OF A DATA FIELD FOR A GIVEN DATA BASE
	VERDI	VERIFY TEH EXISTENCE OF A DATA ITEM IN A GIVEN VIEW
	VERDIDT	DETERMINE IF A DATA TYPE IS ASSOCIATED WITH ANY DATA ITEMS
	VERDOM	VERIFY THE EXISTENCE OF A DOMAIN CLASS IN THE CDM
	VERDSL3	
	VERDSTP	VALIDATE A USER ENTERED DESCRIPTION TYPE
	VERDSTX	VERIFY THE EXISTENCE OF DESC. TEXT FOR A GIVEN OBJECT

System		Module
Module	Name	Purpose
	VERDT	VERIFY THE EXISTENCE OF A USER DEFINED
		DATA TYPE
	VERDTD	VERIFY THE EXISTENCE OF A DATA TYPE IN A
		GIVEN DOMAIN
	VERENT	VERIFY THE EXISTENCE OF AN ENTITY CLASS IN
	VERKC	A MODEL VERIFY THE EXISTENCE OF A KEY CLASS IN A
	VERAC	MODEL
	VERKW	verify the existence of a keyword.
	VERKVE	VERIFY THE EXISTENCE OF ENTITY CLASS
		KEYWORD
	VERKWR	VERIFIES THE EXISTANCE OF A RELATION CLASS
		KEYWORD.
	VERMOD	verify the existence of a model and return
		the unique number.
	VERNMA	verify the existence of an attribute class
	VERNME	in a model.  verify the existence of an entity class in
	VERNIE	a model.
	VEROAC	verify the existence of an owned attribute
	120000	class for an entity.
	VERPDF	verify the existence of a
		project data field occurrence.
	VERPSB	VERIFIES THE EXISTANCE OF A PROGRAM STATUS
		BLOCK FOR AN IMS DATABASE
	VERRC	verify the existence of a relation class.
	VERRCBS	verify if there are any mapping to a set
	UPPROC	found in RC_BASED_REC_SET.
	VERRCC VERRCMP	verify if the relation class is complete. verify whether a member has been mapped to
	V ERRON?	a relation class.
	VERRCNM	VERIFY EXISTANCE OF A RELATION IN A MODEL
	VERRCST	REPORT WHETHER A RC TO SET MAP EXISTS.
	VERRK	verifies the existance of a key for a
		record.
	VERRKM	verifies the existance of a data field for
		a record.
	VERRSET	
	VERRT	VERIFIES THE EXISTANCE OF A RECORD TYPE.

System	Module	Module				
	Mame	Purpose				
	VERSDT	For a given domain number, return its standard data type name.				
	VERSMS	fetch the member count for a given set.				
	VERTYP	verifies that a type identification for a data type is valid.				
	VERUDTN	verify the existence of a USER DEFINED DATA TYPE (USERDATATYPE)/USDF				
	VERVIEW	verify the existence of a view in the system.				
	VOMAPS	ENFORCES AUC TO SET MAPPING RULES.				
	WRTACKW	RETREIVE AND WRITE ALL THE KEYWORDS ASSOCIATD WITH AN ATTRIBUTE CLAS				
	WRTALI	RETRIEVE ALL ALIAS NAMES OF AN ATTRIBUTE CLASS.				
	WRTANAM	RETRIEVE AND COPY ALL THE MAMES (PRIMARY AND ALIAS) OF AN ATTRIBUTE.				
	WRTECKW	RETREIVE AND COPY ALL THE KEYWORDS ASSOCIATED WITH AN ENTITY CLASS.				
	VRTENAM	RETRIEVE AND COPY ALL THE ALIAS NAMES OF AN ENTITY CLASS.				

### EXIT

MDDL/MAIN MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

### **FCLOSE**

CLSFIL THIS ROUTINE CLOSES AN OUTPUT FILE. THE FILE WILL

### FREE

COMMIT STORE THE REUSEABLE NUMBER TO THE DATA BASE.

ROLBACK THE TRANSACTIONS.

System Module Module Module Mame Purpose

**GDATA** 

PRCCMD THIS ROUTINE IS CALLED TO HANDLE ALL

**GETCHAR** 

GETNCHR GET THE NEXT CHARACTER FROM EITHER

STANDARD INPUT

INITEX

INITSES PERFORM ANY SESSION INITIALIZATION

NECESSARY

INITFP

INITSES PERFORM ANY SESSION INITIALIZATION

NECESSARY

LOGOFF

TERMSES ROUTINE TO TERMINATE AN NDDL

LOGON

INITSES PERFORM ANY SESSION INITIALIZATION

NECESSARY

OBINDN

CHKKEYS CHECKS TO SEE IF A KEY CLASS FULFILLED

RULES.

System Module Module Module Name Purpose

COBINDM ORACLE ROUTINE

FILEINS INSERT DESCRIPTION TEXT INTO CDM

STRINS INSERT DESCRIPTION TEXT INTO THE COM

OCLOSE

COCLOSE ORACLE ROUTINE

OCOF

COCOF ORACLE ROUTINE

OCOM

COCOM ORACLE ROUTINE

ODFINN

CHKKEYS CHECKS TO SEE IF A KEY CLASS FULFILLED

RULES.

CODFINN ORACLE ROUTINE

**OERMSG** 

COERMSG ORACLE ROUTINE

OEXEC

CHKKEYS CHECKS TO SEE IF A KEY CLASS FULFILLED

RULES.

COEXEC ORACLE ROUTINE

FILEINS INSERT DESCRIPTION TEXT INTO CDM

STRINS INSERT DESCRIPTION TEXT INTO THE CDM

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MDDL COMMAND PROCESSOR Where-external-routine-used List

System Module Module Module Purpose

OFETCH

CHKKEYS CHECKS TO SEE IF A KEY CLASS FULFILLED

RULES.

COFETCH ORACLE ROUTINE

**OISCR** 

PRCCMD THIS ROUTINE IS CALLED TO HANDLE ALL

**OLOGOF** 

COLOGOF ORACLE ROUTINE

OLON

COLON ORACLE ROUTINE

OOPEN

CHRKEYS CHECKS TO SEE IF A KEY CLASS FULFILLED

RULES.

COOPEN ORACLE ROUTINE

OPNFIL

CERELS GENERATES NDDL COMMANDS ON A FILE FOR ALL

ENTITIES IN A RELATION.

CESTRUC GENERATES NDDL COMMANDS ON A FILE FOR ALL

ENTITIES FOR THE STRUCTURE

CMBENT CONROLS THE PROCESSING LOGIC FOR THE

COMBINE ENTITY COMMAND.

System	Module	Module
Module	Name	Purpose

CPYMOD CONTROLS THE PROCESSING LOGIC FOR THE COPY

MODEL COMMAND.

FCOPATT GENERATE HDDL COMMANDS FROM A COPY

ATTRIBUTE COMMAND

HRGMOD MERGE TWO IDEF MODELS INTO ONE

**OPNFRM** 

INITSES PERFORM ANY SESSION INITIALIZATION

NECESSARY

OROL

COROL ORACLE ROUTINE

OSQL3

CHKKEYS CHECKS TO SEE IF A KEY CLASS FULFILLED

RULES.

COSQL3 ORACLE ROUTINE

**PDATA** 

PRCCMD THIS ROUTINE IS CALLED TO HANDLE ALL

**PMSGLS** 

PRCCMD THIS ROUTINE IS CALLED TO HANDLE ALL

UERROR ISSUE A MESSAGE TO THE USER, CONSIDERED A UWARN ISSUE A MESSAGE TO THE USER, CONSIDERED A

PRINTF

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# NDOL COMMAND PROCESSOR Where-external-routine-used List

System Module	Module Name	Nodule Purpose
	AKCROW	THIS ROUTINE ADDS A ROW TO THE UNBOUNDED KEY CLASS LIST
	BRANCHR	PERFORMS MULTI-WAY CALL TO THE
	COMMIT	STORE THE REUSEABLE NUMBER TO THE DATA BASE.
	UERROR	ISSUE A MESSAGE TO THE USER, CONSIDERED A
	UVARN	ISSUE A MESSAGE TO THE USER, CONSIDERED A
	VEROBJ	VERIFY THAT THE OBJECT EXISTS.
	YYPARSE	**** PURPOSE MOT FOUND BY STRIPPER ****

#### PUTC

WRTLIN	THIS ROUTINE WRITES A NDDL COMMAND LI	NE
	(80 CHARACTERS)	

### RPLFRM

PRCCMD	THIS	ROUTINE	IS	CALLED	TO	HANDLE	ALL

## SPRINTF

ADDMAP	ADD A CS-IS MAPPING
AKCROW	THIS ROUTINE ADDS A ROW TO THE UNBOUNDED
	KEY CLASS LIST
ALTATT	THE ALTER ATTRIBUTE COMMAND PROCESSOR
	ALTERS
ALTMAP	ALTER MAP COMMAND PROCESSOR
ALTSMAP	ALTER A SINGLE MAP
BLOOPCK	CHECK FOR LOOPS FROM THE ENTITY GIVEN UP
	THE HIERARCHY
CHGDOM	CHANGE THE DOMAIN FOR AN ALTERED ATTRIBUTE
CHKLOOP	CHECK LOOP DEPENDENCY AND FOR TOPS AND
	BOTTOMS
CPYDES	COMMAND PROCESSOR FOR COPY DESCRIPTION
CRTMAP	CREATE MAP COMMAND PROCESSOR
DELAUC	DELETE INHERITED ATT USE,
	KEY CLASS MEMBER,

## NDDL COMMAND PROCESSOR Where-external-routine-used List

System	Module	Module
Module	Name	Purpose
	DELAUCK	DELETE ATTRIBUTE USE CLASS KEY MEMBER GIVEN
	DELMIGK	DELETE MIGRATING KEY CLASS
	DELMTKC	NUMBER
	DESCRB	COMMAND PROCESSOR FOR THE NDDL DESCRIBE COMMAND
		DELETE MIGRATING KEY CLASS
		COMMAND PROCESSOR FOR THE DROP MAP COMMAND
		DROP A SINGLE MAPPING
	ERRRPT	HANDLE ANY ERROR CODE FROM ORACLE,
	INITSES	PERFORM ANY SESSION INITIALIZATION NECESSARY
	INSDFLD	INSERT A RECORD INTO THE DATA_FIELD ENTITY.
	INSDI	INSERT A RECORD INTO DATA ITEM
	INSDT	INSERT A RECORD INTO USER DEF DATA TYPE
	INSRTYP	INSERT A RECORD INTO THE RECORD_TYPE ENTITY. IF
	LOADESC	LOAD DESCRIPTION FROM TEXT EDITOR
	MAPADF	MAP ON AUC TO A DATA FIELD
	MAPASET	
	MAPRC	MAP A RELATION CLASS TO A SET
	MRGMOD2	
	MRGNODE	
	PRCCMD	THIS ROUTINE IS CALLED TO HANDLE ALL
	RDDESC	STORE DESCRIPTION ON THE CDM
	PRCCMD RDDESC TLOOPCK	CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE HIERARCHY
	VEROBJ	
	YYERROR	

## STRCAT

ADD A TOKEN TO A CORRESPONDING LISTS NEXT ENTRY

ADD CORR ADD A TOKEN TO CORRESPONDING LIST

## NDDL COMMAND PROCESSOR Where-external-routine-used List

System Module Module Module Name Purpose

ADD\_TO\_LSTADD A SINGLE TOKEN TO A PARSER OUTPUT LIST

#### STRLEN

ADD A TOKEN TO A CORRESPONDING LISTS NEXT ENTRY

ADD CORR ADD A TOKEN TO CORRESPONDING LIST

ADD\_TO\_LSTADD A SINGLE TOKEN TO A PARSER OUTPUT LIST

#### STRNCMP

ADD A CS-IS MAPPING
ALLATT SELECT ALL THE ATTRIBUTES IN FROM-MODEL
AND GENERATE
ALLENT SELECT ALL THE ATTRIBUTES IN FROM-MODEL
AND GENERATE
ALTMAP ALTER MAP COMMAND PROCESSOR

ALTSMAP ALTER A SINGLE MAP
DEPATT SELECT ALL THE ATTRIBUTES IN THE

DEPENT SELECT ALL THE DEPENDANT ENTITY CLASSES

DRPSMAP DROP A SINGLE MAPPING

HALT WITH 'COMMIT' OR 'ROLLBACK'.

INITSES PERFORM ANY SESSION INITIALIZATION
NECESSARY

PRCCMD THIS ROUTINE IS CALLED TO HANDLE ALL VEROBJ VERIFY THAT THE OBJECT EXISTS.

#### STRNCPY

ADDECNM ADD THE EC NAME AND EC NO INTO KEYLIST

ADDKCLS ADD KEY INFO TO THE UNBOUNDED

KEY\_CLASS\_LIST STRUCTURE

ADDKG ADD KCM\_TAG NUMBER AND NAME TO STRUCTURE ALLATT SELECT ALL THE ATTRIBUTES IN FROM-MODEL

AND GENERATE

ALLENT SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND GENERATE

# MDDL COMMAND PROCESSOR Where-external-routine-used List

System	Module	Module
	Mame	
	ALLREL	FOR EACH LEVEL OF RELATIONS IN FROM-MODEL GENERATE
	ALTMAP	ALTER MAP COMMAND PROCESSOR
	CPFCOR	ACCESS A TOKEN IN A CORRESPONDING NAMED LIST
	CPFNXT	ACCESS THE NEXT TOKEN IN A PARSER LIST.
	CPFONE	
	DEPATT	SELECT ALL THE ATTRIBUTES IN THE
	DEPENT	SELECT ALL THE DEPENDANT ENTITY CLASSES
		FOR EACH LEVEL OF RELATIONS IN STRUCTURE GENERATE
	DPKCLST	CREATE AN KEY_CLASS_LIST TABLE CONTAINING ALL THE ENTITY
	GETECNM	THIS ROUTINE SEARCHES THE UNBOUNDED EC LIST DATA
	<b>GETGLOB</b>	WILL PROVIDE GLOBAL VARIABLES
	MRGMOD2	CONTROL THE LOGIC FOR PROCESSING THE REMAINING MODEL 2
	NEXTKC	THIS ROUTINE RETURNS A KC_NAME FOR A GIVEN EC NO FROM
	NEXTKCM	THIS ROUTINE RETURNS A KG_NO, KG_NAME FOR A GIVEN EC NO
	PRCCMD	THIS ROUTINE IS CALLED TO HANDLE ALL
	SELIAUC	
	UERROR	
	UWARN	· · · · · · · · · · · · · · · · · · ·

### TERMFP

TERMSES ROUTINE TO TERMINATE AN NDDL

## TOLOWER

ADDMAP ADD A CS-IS MAPPING
ALTMAP ALTER MAP COMMAND PROCESSOR
ALTSMAP ALTER A SINGLE MAP
DRPSMAP DROP A SINGLE MAPPING

## 3.10.7 Main Program Parts List

The following lists each Main Program listed in 3.10.1 and all the modules which are called either by that module itself or by any of the documented modules which it calls. It is possible for a non-main module to be listed more that once if it is called by multiple modules. The called modules, in this case known as program parts, are marked as to whether they are documented here. If so, the phrase "well-defined module" appears by the module name, if not it is an "external "routine". The Purpose of the Main Program module is listed as well.

# PS 620141100 1 Movember 1985

Main Pgm	Module	Module
Mame	Name	Туре
DELDFL1	Pu	rpose>DELETE A RECORD FROM DATA_FIELD
	COBINDN	Vell-defined module
	COERMSG	Vell-defined module
	COEXEC	Well-defined module
	COSQL3	Vell-defined module
	ERRPRO	External routine
	ERRRPT	Vell-defined module
	OBINDM	External routine
	OERMSG	External routine
	OEXEC	External routine
	OSQL3	External routine
	SPRIMTF	External routine

Main Pgm	Module	Module
Mame	Mame	Type

# MDDL/MAIN Purpose--- MAIN PROGRAM FOR THE NDDL

COMMAND PROCESSOR ADDATT Vell-defined module ADDDT Vell-defined module ADDEC Vell-defined module Well-defined module ADDECMM ADDFRM External routine ADDIC Well-defined module ADDKCLS Vell-defined module ADDKG Well-defined module ADDKM Well-defined module ADDKA Well-defined module **ADDKAY** Well-defined module ADDKVE Well-defined module Well-defined module ADDKWR ADDMAP Well-defined module ADDMIG Well-defined module Well-defined module ADDNCORR ADDNSTD Well-defined module ADDOAC Well-defined module ADDPARM Well-defined module ADDRCEC Vell-defined module Well-defined module ADDRNUM ADDSTD Well-defined module ADDTXT Well-defined module ADD CORR Well-defined module ADD TO CNT Well-defined module ADD\_TO\_LST Well-defined module ADPĀRMĪ Well-defined module AKCROW Well-defined module ALLATT Well-defined module ALLENT Well-defined module ALLKEY Well-defined module ALLOC External routine ALLREL Well-defined module **ALLVIEW** Well-defined module Well-defined module ALTALI ALTATT Well-defined module Well-defined module ALTCARD ALTDOM Well-defined module

Main Pgm Module Name Name	Module Type
AT TIPE	Mall defined module
ALTDT ALTENT	Well-defined module Well-defined module
ALTHAP	Well-defined module
ALTHOD	Well-defined module
ALTREL	Well-defined module
ALTSHAP	Well-defined module
ATTKV	Vell-defined module
BLDATT	Vell-defined module
BLDATTI	Well-defined module
BLECLST	Well-defined module
BLKCL1	Well-defined module
BLKCLST	Well-defined module
BLOOPCK	Well-defined module
BLRCKC	Well-defined module
BLRCKC1	Well-defined module
BLSECRC	Well-defined module
BLVWLST	Well-defined module
BRANCHR	Well-defined module
CDP4A	Well-defined module
CERELS	Well-defined module
CESTRUC	Well-defined module
CHGDOM	Well-defined module
CHGLOBL	Well-defined module
CHKATT	Well-defined module
CHKAUCV	Well-defined module
CHKCARD	Well-defined module
CHKDOMS	Well-defined module
CHKINH	Well-defined module
CHKKEYS	Well-defined module
CHKLOOP	Well-defined module
CHKMOD	Well-defined module
CHKOVN	Well-defined module
CHKREL	Well-defined module
CKDUPEC	Well-defined module
CKRNLST	Well-defined module
CLSFIL	Well-defined module
CMBACAL	Well-defined module
CMBALI	Well-defined module
CMBEKW	Well-defined module
CMBENT	Well-defined module

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Main Pgm Name	Module Name	Module Type
	CMBOA	Well-defined module
	CMBRKV	Well-defined module
	CMPMOD	Well-defined module
	COBINDN	Well-defined module
	COCLOSE	Well-defined module
	COCOF	Well-defined module
	COCOM	Well-defined module
	CODFINN	Well-defined module
	COERMSG	Well-defined module
	COEXEC	Well-defined module
	COFETCH	Well-defined module
	COLOGOF	Well-defined module
	COLON	Well-defined module
	COMMIT	Well-defined module
	COOPEN	Well-defined module
	COPATT	Well-defined module
	COPENT	Well-defined module
	COPYAC	Well-defined module
	COROL	Well-defined module
	COSQL3	Well-defined module
	CPFCOR	Well-defined module
	CPFNXT	Well-defined module
	CPFONE	Well-defined module
	CPFVAL	Well-defined module
	CPYDES	Well-defined module
	CPYMOD	Well-defined module
	CRTALI	Well-defined module
	CRTATT	Well-defined module
	CRTDOM	Well-defined module
	CRTENT	Well-defined module
	CRTMAP	Well-defined module
	CRTMOD	Well-defined module
	CRTREL	Well-defined module
	CRTVIEW	Well-defined module
	DEFAREA	Well-defined module
	DEFCODL	Well-defined module
	DEFDB	Well-defined module
	DEFFLD	Well-defined module
	DEFINS	Well-defined module
	DEFIMSS	Well-defined module

		_
Main Pgm	Module	Module
Name	Name	Type
		***
	DECREA	Wall dable of m. 4
	DEFKEY DEFORCL	Well-defined module
	· · · - · · <del>-</del> · ·	Well-defined module
	DEFREC	Well-defined module
	DEFSET DEFTOT	Well-defined module
		Well-defined module
	DEL1PDF	Well-defined module
	Delac Delacal	Well-defined module
		Well-defined module
	DELACKY	Well-defined module
	DELACIM	Well-defined module
	DELASM	Well-defined module
	DELASM1	Well-defined module
	DELASM2	Well-defined module
	DELAUC	Well-defined module
	DELAUCK	Well-defined module
	DELAUCL	Well-defined module
	DELCMPR	Well-defined module
	DELCPRC	Well-defined module
	DELDAA1	Well-defined module
	DELDAA2	Well-defined module
	DELDBA1	Well-defined module
	DELDBDF	Well-defined module
	DELDERT	Well-defined module
	DELDBS1	Well-defined module
	DELDEST	Well-defined module
	DELDFL2	Well-defined module
	DELDFL3	Well-defined module
	DELDIV	Well-defined module
	DELDON	Well-defined module
	DELDSL1	Well-defined module
	DELDSL2	Well-defined module
	DELDSL3	Well-defined module
	DELDT	Well-defined module
	DELDTD	Well-defined module
	DELDTNO	Well-defined module
	DELEC	Well-defined module
	DELECAL	Well-defined module
	DELECKY	Well-defined module
	DELECNM	Well-defined module
	DELIASM	Well-defined module

		_
Main Pgm	Module	Module
Name	Name	Туре
	DELIAUC	Well-defined module
	DELIAUK	Well-defined module
	DELIPDF	Well-defined module
	DELIRCS	Well-defined module
	DELISS1	Well-defined module
	DELISS2	Well-defined module
	DELKC	Vell-defined module
	DELKCH	Well-defined module
	DELKCHT	Well-defined module
	DELKA	Well-defined module
	DELKAYC	Well-defined module
	DELKAEC	Well-defined module
	DELKVRC	Well-defined module
	DELMDKC	Well-defined module
	DELMDRC	Well-defined module
	DELMICK	Well-defined module
	DELMOD	Well-defined module
	DELMTKC	Well-defined module
	DELOAC	Well-defined module
	DELOACE	Well-defined module
	DELPCB	Well-defined module Well-defined module
	DELPDFT	Well-defined module
	DELPDI	Well-defined module
	DELRBR1	Well-defined module
	DELRBR2	Well-defined module
	DELRBR3	Well-defined module
	DELRC	Well-defined module
	DELRCKY	Well-defined module
	DELRCST	Well-defined module
	DELREUS	Well-defined module
	DELRKM1	Well-defined module
	DELRKM2	Well-defined module
	DELRKM3	Well-defined module
	DELRKY1	Well-defined module
	DELRKY2	Well-defined module
	DELRST2	Well-defined module
	DELRST3	Well-defined module
	DELRTY2	Well-defined module
	DELSDF1	Well-defined module

Nain Pgn Name	Nodule Name	Nodule Type
	DELEDF2 DELEDF5	Well-defined module Well-defined module
	DELSEC	Vell-defined module
	DELSECR	Vell-defined module
	DELEN1	Vell-defined module
	DELSTM1	Vell-defined module
	DELSTM2	Well-defined module
	DELSTM3	Vell-defined module
	DELTEXT	Well-defined module
	DELTXT	Well-defined module
	DEPATT	Well-defined module
	DEPENT	Well-defined module
	DEPFRON	Well-defined module
	DEPREL	Well-defined module
	DESCRB	Well-defined module
	DLDSL2 DLMDAUC	Well-defined module Well-defined module
	DIMIGRO	Well-defined module
	DOMUSAG	Well-defined module
	DPKCLST	Well-defined module
	DRPAC	Well-defined module
	DRPALI	Well-defined module
	DRPATT	Well-defined module
	DRPDB	Well-defined module
	DRPDF	Well-defined module
	DRPDIV	Well-defined module
	DRPDOM	Well-defined module
	DRPDT	Well-defined module
	DRPENT	Well-defined module
	DRPFLD	Well-defined module
	DRPKC	Well-defined module
	DRPKV	Well-defined module
	DRPKVC	Well-defined module
	DRPMAP	Well-defined module
	DRPMGKM	Well-defined module
	DRPMGRC DRPMIG	Well-defined module Well-defined module
	DRPMOD	Well-defined module
	DRPRCE	Well-defined module
	DRPREC	Well-defined module
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GENENT1 Well-defined module		_	
		GENOA	Well-defined module
GENREL Well-defined module		GENREL	Well-defined module

Main Pgm Name	Module Name	Module Type
		-18-
	GENRKY	Well-defined module
	GENRNME	Well-defined module
	GETACAL	Well-defined module
	GETCHAR	External routine
	GETDBST	Well-defined module
	GETDOM	Well-defined module
	GETDRT	Well-defined module
	GETECAL	Well-defined module
	GETECHM	Well-defined module
	GETECS	Well-defined module
	GETGLOB	Well-defined module
	GETMAPC	Well-defined module
	GETNCHR	Well-defined module
	GETNNUM	Well-defined module
	GETNXNO	Well-defined module
	GETRCID	Well-defined module
	GETRONM	Well-defined module
	GETRDH	Well-defined module
	HALT	Well-defined module
	ICOPATT	Well-defined module
	ICOPENT	Well-defined module
	INDFROM	Well-defined module Well-defined module
	INITCMD	External routine
	INITEX	External routine
	INITFP INITRDL	Well-defined module
	INITSES	Well-defined module
	INSAC	Well-defined module
	INSACNM	Well-defined module
	INSAREA	Well-defined module
	INSAUC	Well-defined module
	INSAUCS	Well-defined module
	INSCRC	Well-defined module
	INSDAA	Well-defined module
	INSDB	Well-defined module
	INSDFLD	Well-defined module
	INSDI	Well-defined module
	INSDOM	Well-defined module
	INSDSL	Well-defined module
	INSDT	Well-defined module
		4.1

Main Pgm	Module	Module
Mame	Name	Туре
	INSEC	Well-defined module
	Insecnm	Well-defined module
	INSIAUC	Well-defined module
	INSISS	Well-defined module
	INSKC	Well-defined module
	Inskch	Well-defined module
	inskv	Well-defined module
	INSKVAC	Well-defined module
	INSKVEC	Well-defined module
	INSKVRC	Well-defined module
	INSHOD	Well-defined module
	INSOAC	Well-defined module
	INSPCB	Well-defined module
	INSPDF	Well-defined module
	INSPDI	Well-defined module
	Inspsb	Well-defined module
	Inspard	Well-defined module
	INSRC	Well-defined module
	INSRCRS	Well-defined module
	Insreus	Well-defined module
	Insrkey	Well-defined module
	Insrkm	Well-defined module
	INSRSET	Well-defined module
	INSRTYP	Well-defined module
	INSSCH	Well-defined module
	INSSDFL	Well-defined module
	INSSEC	Well-defined module
	INSSECR	Well-defined module
	INSSTM	Well-defined module
	KEYLOOK	Well-defined module
	LOADESC	Well-defined module
	LOGOFF	External routine
	LOGON	External routine
	LOWUPP	Well-defined module
	MAPACE	Well-defined module
	MAPASET	Well-defined module
	MAPRC	Well-defined module
	MIGREL	Well-defined module
	MKRNLST	Well-defined module
	MRGMOD	Well-defined module

Main Pgm	Module	Module
Name	Name	Туре
	MRGMOD1	Well-defined module
	MRGMOD2	Well-defined module
	MRGNODE	Well-defined module
	NEXTKC	Well-defined module
	NEXTKCH	Well-defined module
	NRGET	Well-defined module
	NRSTORE	Well-defined module
	OBINDN	External routine
	OCLOSE	External routine
	OCOF	External routine
	OCOM	External routine
	ODFINN	External routine
	OERMSG	External routine
	OEXEC	External routine
	OFETCH	External routine
	OISCR	External routine
	OLOGOF	External routine
	OLON	External routine
	OOPEN	External routine
	OPNFIL	External routine
	OPNFRM	External routine
	OROL	External routine
	OSQL3	External routine
	P1FROM	Well-defined module
	PDATA	External routine
	PDFDB	Well-defined module
	PDFDF	Well-defined module
	PDFREC	Well-defined module
	PDFSRCH	Well-defined module
	PMFROM	Well-defined module
	PMSGL6	External routine
	PNOFROM	Well-defined module
	PRCCMD	Well-defined module
	PRINTF	External routine
	PROCDT	Well-defined module
	PUTC	External routine
	RACKW2	Well-defined module
	RCCHEK	Well-defined module
	RCCHEK1	Well-defined module
	RDDESC	Well-defined module

RECKW2  RELKW  RELKW  REHVIEW  REHVIEW  Well-defined module  REMAME  RETACKW  Well-defined module  RETECKW  RETECKW  RETRACI  RETRACP  Well-defined module  RETRACP  RETRCKW  Well-defined module  RETRECI  RETRECI  RETRECY  Well-defined module  RETRECP  RELI-defined module  ROLBACK  RPLFRM  RCKW2  Well-defined module  RELACHM  Well-defined module  SELACHM  SELIAUC  Well-defined module  SELIAUC  Well-defined module  SELIKEY  Well-defined module  SELIKEY  Well-defined module  SELRCHM  Well-defined module  SELRCHM  Well-defined module  SELRCHM  Well-defined module  SELRCHM  SELRCHM  Well-defined module  SELRCHM  Well-defined module  SELSTH  Well-defined module  SELSTH  Well-defined module  SPRINTF  External routine  STRICAT  External routine  STRICAT  External routine  STRICHP  External routine  STRUCHP  External routine  External routine  External routine  External routine  TERMSES  Well-defined module  TOUPPER  External routine  TOPMODE  Well-defined module  TOUPPER  External routine  TOPMODE  Well-defined module  TOUPPER  External routine  TOPMODE  Well-defined module  TOUPPER  External routine  TARMIDML  External routine  TARMIDML  External routine  TARMIDML  TXTTTP  Well-defined module  Well-defined module  UPDACAL  UPDACAL  Well-defined module	Main Pgm Mame	Module Mame	Module Type
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RETRACP RETRCKW RETREC1 Well-defined module RETRECP Well-defined module RETRECP ROLBACK RPLFRM RECKW2 Well-defined module RECKW2 Well-defined module RECKW2 Well-defined module SELACMM SELECUM SELIAUC Well-defined module SELIKEY Well-defined module SELIKEY Well-defined module SELRSET Well-defined module SELRSET Well-defined module SELRSTM Well-defined module SPRINTF External routine STRIANS Well-defined module STRICAT STRINS Well-defined module STRICAT External routine STRICAP External routine STRUCHP STRUCHP External routine STRUCHP External routine STRUCHP External routine STRUCHP External routine		RETACKV RETECKV	Well-defined module Well-defined module
ROLBACK RPLFRM RRCKV2 Well-defined module SELACWM SELECWM SELECWM SELIAUC Vell-defined module SELIKEY Vell-defined module SELIKEY Vell-defined module SELRERM Vell-defined module SELRSET Vell-defined module SELSTM Vell-defined module SPRINTF STRICAT STRICAT STRINS STRINS STRIMS STRICAT STRICAT STRICAT STRICAT STRICAT External routine STRICAT		RETRACP RETRCKW RETREC1	Well-defined module Well-defined module
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SPRINTF STRCAT External routine  STRINS Well-defined module  STRUCHP STRUCHP External routine  STRUCPY External routine  TERMSES Well-defined module  TLOOPCK Well-defined module  TOLOWER TOUPPER TOUPPER TRMNDML External routine  TXTTYP Well-defined module  UERROR Well-defined module		SELRCNM SELRSET	Well-defined module Well-defined module Well-defined module
STRUCHP External routine STRUCHP External routine STRUCPY External routine TERMFP External routine TERMSES Well-defined module TLOOPCK Well-defined module TOLOWER External routine TOPNODE Well-defined module TOUPPER External routine TRMNDML External routine TXTTYP Well-defined module UERROR Well-defined module UPDAC Well-defined module UPDACAL Well-defined module		SPRINTF STRCAT	External routine External routine
TERMSES Well-defined module TLOOPCK Well-defined module TOLOWER External routine TOPNODE Well-defined module TOUPPER External routine TRMNDML External routine TXTTYP Well-defined module UERROR Well-defined module UPDAC Well-defined module UPDACAL Well-defined module		STRLEN STRUCHP STRUCPY	External routine External routine External routine
TOUPPER External routine TRMNDML External routine TXTTYP Well-defined module UERROR Well-defined module UPDAC Well-defined module UPDACAL Well-defined module		TERMSES TLOOPCK	Well-defined module Well-defined module
UERROR Well-defined module UPDAC Well-defined module UPDACAL Well-defined module		TOUPPER TRMNDML	External routine External routine
ALDUAN ARTY-METTURU BUUNTE		UERROR UPDAC UPDACAL	Well-defined module Well-defined module Well-defined module

Main Pgm	Module	Module
Mame	Mame	Туре
	UPDECAL	Well-defined module
	UPDECHM	Well-defined module
	UPDIMD	Well-defined module
	UPDMNAM	Well-defined module
	UPDMOD	Well-defined module
	UPDNXNO	Well-defined module
	UPDRCNM	Well-defined module
	UPDTDOM	Well-defined module
	UPDTDT	Well-defined module
	UPDTKW	Well-defined module
	UPDTRC	Well-defined module
	UPDVIEW	Well-defined module
•	UWARN	Well-defined module
	VERACDT	Well-defined module
	VERACNM	Well-defined module
	VERALI	Well-defined module
	VERAREA	Well-defined module
	VERASM	Well-defined module
	VERATT	Well-defined module
	VERAUC	Well-defined module
	VERCRC	Well-defined module
	VERDB	Well-defined module
	VERDBAS	Well-defined module
	VERDF	Well-defined module
	VERDFDT	Well-defined module
	VERDFLD	Well-defined module
	VERDI	Well-defined module
	VERDIDT	Well-defined module
	VERDOM	Well-defined module
	VERDSL3	Well-defined module
	VERDSTP	Well-defined module
	VERDSTX	Well-defined module
	VERDT	Well-defined module
	VERDTD	Well-defined module
	VERENT	Well-defined module
	VERKC	Well-defined module
	VERKW	Well-defined module
	VERKWE	Well-defined module
	VERKWR	Well-defined module
	VERMOD	Well-defined module

		<b></b>
Main Pgm	Module	Module
Name	Name	Туре
	VERNMA	Well-defined module
	VERNME	Well-defined module
	VEROAC	Well-defined module
	VEROBJ	Well-defined module
	VERPDF	Well-defined module
	VERPSB	Well-defined module
	VERRC	Well-defined module
	VERRCBS	Well-defined module
	VERRCC	Well-defined module
	VERRCMP	Well-defined module
	VERRCNM	Well-defined module
	VERRCST	Well-defined module
	VERREL	Well-defined module
	<b>VERRELS</b>	Well-defined module
	VERRK	Well-defined module
	VERRKM	Well-defined module
	VERRSET	Well-defined module
	VERRT	Well-defined module
	VERSDT	Well-defined module
	VERSMS	Well-defined module
	VERTYP	Well-defined module
	VERUDTN	Well-defined module
	VERVIEW	Well-defined module
	VOMAPS	Well-defined module
	WRTACKW	Well-defined module
	WRTALI	Well-defined module
	WRTANAM	Well-defined module
	WRTDESC	Well-defined module
	WRTDSC4	Well-defined module
	WRTECKW	Well-defined module
	WRTENAM	Well-defined module
	WRTLIN	Well-defined module
	YYERROR	Well-defined module
	YYLEX	External routine
	YYPARSE	Well-defined module

# 5.10.8 Module Documentation

The following documentation describes information which is specific to each individual module being documented in this specification as listed in section 5.10.2. It provides a compact way of getting information that would be otherwise buried within each module's source code.

The specific items in this module documentation have the following meanings:

MAME: Name of program Module.

PURPOSE: Purpose of Module as detailed in the

source code.

LANGUAGE: Programming language source code is

written in.

The choices are:

VAX-11 FORTRAN

(I/S-1 Workbench 'C')

VAX-11 COBOL

MODULE TYPE: Whether a Program, Subroutine, or

Function.

SOURCE FILE: Name of Source File from file

specification.

SOURCE FILE TYPE: Source File Extension from file

specification.

HOST: Whether this is a host-dependent

routine (VAX or IBM) or blank if

host-independent.

SUBSYSTEM: IISS sub-system this file resides in.

SUBDIRECTORY: Sub-directory of that subsystem in

which this file resides.

DOCUMENTATION GROUP: Name of documentation group of which

this source file is a member.

DESCRIPTION: A description of the module as otained

from the source code.

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ARGUMENTS: The arguments with which this routine

is called if it is a Subroutine or a

Function.

INCLUDE FILES: A list of all the files that are

included into this module as well as

their purposes.

ROUTIMES CALLED: Subroutines or Functions, either

documented or external, called by

this module, if any.

CALLED DIRECTLY BY: The documented routines which call

this module, if any.

USED IN MAIN PROGRAM(S): The documented Main Programs which

contain this module in their parts list according to the list in section

3.10.7.

The Module Documentation is arranged alphabetically according to Module Name.

#### MDDL COMMAND PROCESSOR Module Documentation

MAME:

ADDATT

PURPOSE:

ASSOCIATES EXISTING ATT VITH ENTITY IN

CREAT ENTITY COMMAND

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

ADDATT

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

ADDATT ASSOCIATES AN EXISTING ATTRIBUTE WITH AN ENTITY CLASS IN THE CREATE ENTITY COMMAND.

### **ARGUMENTS:**

MODEL-NO = DSPLY [S9(9)]EC-NO = DSPLY [S9(9)]

#### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

#### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST ADDOAC - ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND AS ATT

USE CLASS

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

- ACCESS THE NEXT TOKEN IN A PARSER LIST.

### CALLED DIRECTLY BY:

PS 620141100 1 November 1985

- CONTROL PROCESSING FOR ALTER ENTITY CLASS COMMAND.

CRTENT - CONTROL THE PROCESSING LOGIC FOR CREATING A NEW ENTITY CLASS.

## USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

#### NDDL COMMAND PROCESSOR Module Documentation

MAME:

ADDDT

PURPOSE:

PROGRAM MAME

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE PILE:

SUBROUTINE ADDDT

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

### DESCRIPTION:

THE ADD DATA TYPE CLAUSE ADDS THE DATA TYPE NAME. TYPE, SIZE AND LENGTH OF FIELD, GIVEN THE DOMAIN NUMBER

SELECT THE DATA TYPE NAME, ID, SIZE, NAMES OF DECIMALS, AND WHETHER THE TYPE IS STANDARD OR USER-DEFINED. ADD THE PARTICULAR TYPE GIVEN THE DONAIN NUMBER. REPEAT FOR EACH DATA TYPE TO BE ADDED.

#### **ARGUMENTS:**

DOM-NO, DATA-TYPE-NAME, TYPE-ID = MAX-SIZE.NO-OF-DEC.STD-USER =

#### ROUTINES CALLED: ------

ADDSTD - PROGRAM NAME

ADDNSTD

- ADDS A USER DEFINED DATA TYPE

UERROR

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

### CALLED DIRECTLY BY:

PROCDT

- PROGRAM NAME

### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

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### NDDL COMMAND PROCESSOR Module Documentation

NAME: ADDEC

PURPOSE: ADD THE ENTITY NAME TO THE TREE LIST

STRUCTURE

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: AKCROV

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

C -- ADDEC(WEC\_NO)

COBOL -- CALL "ADDEC" USING

EC-NO.

FORTRAN -- CALL ADDEC(ECNO)

INPUT:

INT \*EC NO ;

**OUTPUT:** 

DESCRPIPTION:

ADD EC NO INTO KEYLIST TREE DATA STRUCTURE

**ARGUMENTS:** 

EC\_NO = INT \*

INCLUDE FILES:

KEYLIST - DATA STRUCTURE FOR NDDL MODELLING COMMANDS

ROUTINES CALLED:

ALLOC

CALLED DIRECTLY BY:

AKCROV - THIS ROUTINE ADDS A ROW TO THE UNBOUNDED

KEY\_CLASS\_LIST

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

### NDDL COMMAND PROCESSOR Module Documentation

NAME: **ADDECMM** 

PURPOSE: ADD THE EC NAME AND EC NO INTO KEYLIST

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT () SOURCE FILE: BLECLST SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYNOPSIS

-- ADDECNH(EC\_NO, EC\_NAME)

COBOL -- CALL "ADDECMM" USING

EC\_NO,

EC NAME.

FORTRAN -- CALL ADDECNM (EC\_NO, EC\_NAME)

INPUT:

INT \*EC NO ; CHAR \*EC NAME ;

**OUTPUT:** 

DESCRIPTION

THIS ROUTINE ADDS THE EC NO AND EC NAME TO THE

KEYLIST DATA STRUCTURE

ARGUMENTS:

EC\_NO = INT \*

EC\_MAME - CHAR \*

INCLUDE FILES:

KEYLIST - DATA STRUCTURE FOR MDDL MODELLING COMMANDS

ROUTINES CALLED:

ALLOC STRNCPY

CALLED DIRECTLY BY:

BLECLST - THIS ROUTINE CREATES A ROW IN THE UNBOUNDED EC\_LIST

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

# NDDL COMMAND PROCESSOR Module Documentation

NAME: ADDKC

PURPOSE: CONTROLS PROCESS FOR KEY CLASS CLAUSE FOR

CREATE/ALTER ENTI

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE

SOURCE FILE: SOURCE FILE TYPE: ADDKC .COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

## **DESCRIPTION:**

ADDKC CONTROLS THE PROCESSING OF THE KEY CLASS CLAUSE FOR THE CREATE AND ALTER ENTITY COMMANDS. KEY CLASS CLAUSE CONSISTS OF AN KEY CLASS NAME, FOLLOWED BY AN OPTIONAL LIST OF ATTRIBUTE USE CLASS NAMES. THE CLAUSE IS RECURSIVE. KEY CLASS NAME IS ON A-KC-LST, NO. OF ATTRIBUTE FOR KEY CLASS IN A-NUM-LST AND LIST OF ATTRIBUTE IN A-AUC-LST.

#### **ARGUMENTS:**

MODEL-NO = DSPLY [S9(9)]EC-NO = DSPLY [S9(9)]

#### INCLUDE FILES:

UNIQENO - UNIQUE NUMBER ASSIGNMENTS FOR CDM OBJECTS
LISTNOS - VALID LIST NUMBERS

#### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

CPFVAL - RETURN THE COUNTER OF LIST1 BASED ON ROW IN

LIST2

VERKC - VERIFY THE EXISTENCE OF A KEY CLASS IN A MODEL

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

GETNNUM

### PS 620141100 1 November 1985

INSEC - INSERT A RECORD INTO KEY CLASS

CPFWXT - ACCESS THE MEXT TOKEN IN A PARSER LIST.

ADDEN - ADDS SINGLE KEY CLASS MEMBER(AUC) TO KEY CLASS

FOR ADD KEY

### CALLED DIRECTLY BY:

ALTERT - CONTROL PROCESSING FOR ALTER ENTITY CLASS

COMMAND.

CRTENT - CONTROL THE PROCESSING LOGIC FOR CREATING A NEW

ENTITY CLASS.

### USED IN HAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

#### NDDL COMMAND PROCESSOR Module Documentation

NAME: ADDKCLS

PURPOSE: ADD KEY INFO TO THE UNBOUNDED

KEY CLASS LIST STRUCTURE

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT () AKCROV SOURCE FILE:

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: P\$41100

DESCRIPTION: \_\_\_\_\_

SYNOPSIS

C ADDKCLS(#KC MO, #KC MAME)

COBOL -- CALL "ADDKCLS" USING KC-NO.

KC-NAME.

FORTRAN -- CALL ADDKCLS( KCNO, KCNAME)

INPUT:

INT \*KC NO :

CHAR \*KC NAME[30];

**OUTPUT:** 

DESCRP\_PTION:

THIS ROUTINE ADDS KC NO, KC NAME TO THE UNBOUNDED

KEY CLASS LIST

**ARGUMENTS:** 

KC NO -INT \*

KC NAME = CHAR \*

INCLUDE FILES:

- DATA STRUCTURE FOR NDDL MODELLING COMMANDS KEYLIST

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ROUTINES CALLED:

ALLOC STRNCPY

CALLED DIRECTLY BY:

AKCROW - THIS ROUTINE ADDS A ROW TO THE UNBOUNDED KEY\_CLASS\_LIST

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

#### MDDL COMMAND PROCESSOR Module Documentation

MAME:

ADDEG

PURPOSE:

ADD KCH\_TAG NUMBER AND NAME TO STRUCTURE

LANGUAGE:

MODULE TYPE:

PUNCTION

FUNCTION TYPE:

INT ()

SOURCE FILE:

AKCROV

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

C

ADDEG(WEC NO, WECH TAG NO,

WKCM\_TAG\_MANE) ;

COBOL

-- CALL "ADDKG"

USING KCM-TAG-NO,

KCH-TAG-NAME.

FORTRAN -- CALL ADDEG( ECHTAGNO, ECHTAGNAME)

INT \*KCH TAG NO ;

CHAR \*KH TAG WAME[30] ;

**OUTPUT:** 

**DESCRPIPTION:** 

THIS ROUTINE ADDS KEY CLASS NEMBER INFO TO THE UNBOUNDED

TO THE KEY CLASS LIST TREE STRUCTURE

**ARGUMENTS:** 

INT .

KCM\_TAG\_NO = KCM\_TAG\_NAME =

CHAR \*

INCLUDE FILES:

KEYLIST - DATA STRUCTURE FOR MDDL MODELLING COMMANDS

ROUTINES CALLED:

ALLOC STRUCPY

CALLED DIRECTLY BY:

AKCROW - THIS ROUTINE ADDS A ROW TO THE UNBOUNDED KEY\_CLASS\_LIST

USED IN MAIN PROGRAM(S):

NDDL/HAIN - HAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

#### NDDL COMMAND PROCESSOR Module Documentation

MAME:

ADDKM

**PURPOSE:** 

ADDS SINGLE KEY CLASS MEMBER(AUC) TO KEY

CLASS FOR ADD KEY

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

ADDKM

SOURCE FILE TYPE:

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

ADDKM ADDS A SINGLE KEY CLASS MEMBER (ATTRIBUTE USE CLASS) TO A KEY CLASS. USED BY ANY COMMANDS CONTAINING AN ADD EKY CLASS CLAUSE.

#### **ARGUMENTS:**

MODEL-NO = DSPLY [S9(9)]AUC-NAME = DSPLY [X(30)]KC-NO = DSPLY [S9(9)]EC-NO = DSPLY [S9(9)]

#### ROUTINES CALLED:

VERAUC ADDOAC

- VERIFY THE EXISTENCE OF AN ATTRIBUTE USE CLASS

- ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND AS ATT

USE CLASS

UERROR

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

INSKCH - INSERT A RECORD INTO KEY CLASS MEMBER

## CALLED DIRECTLY BY:

ADDKC

- CONTROLS PROCESS FOR KEY CLASS CLAUSE FOR CREATE/ALTER ENTITY

# USED IN MAIN PROGRAM(8):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

ADDEV

PURPOSE:

ADDS KEYVORDS FOR COMMANDS USING "ADD

KEYWORD" (OPTIONAL)

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

ADDKA

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

ADDKW PROCESSES THE "ADD KEYWORD" CLAUSE FOR ANY COMMAND USING KEYWORDS. THE CLAUSE IS OPTIONAL AND MAY NOT EXIST.

#### ARGUMENTS:

OBJECT-TYPE = RECRD

OBJ-ID-NO = DSPLY [S9(9)]

RTN-STATUS = DSPLY [S9(9)]

## INCLUDE FILES:

UNIQUE - UNIQUE NUMBER ASSIGNMENTS FOR CDM OBJECTS

- VALID LIST NUMBERS LISTNOS

#### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE MAMED LIST

LOWUPP - CONVERT A STRING TO UPPER CASE CHARACTERS VERKW - verify the existence of a keyword.

GETNNUM

- INSERT A RECORD INTO KEYWORD INSKW

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

ADDKWE ADDKWA - INSERT AN ATTRIBUTE KEYWORD - INSERT AN ENTITY KEYWORD

ADDKVR - INSERT A RELATION KEYWORD

CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.

#### CALLED DIRECTLY BY:

- CONTROL PROCESSING FOR ALTER ENTITY CLASS COMMAND.

ALTREL - CONTROLS PROCESSING LOGIC FOR THE ALTER RELATION CONMAND

CRTATT - CONTROLS THE PROCESSING LOGIC FOR CREATING AN ATTRIBUTE.

CRTENT - CONTROL THE PROCESSING LOGIC FOR CREATING A NEW ENTITY CLASS.

CRTREL - CONTROLS THE LOGIC FOR VALIDATING AND CREATING A NEW RELATION CLA

ALTATT - THE ALTER ATTRIBUTE COMMAND PROCESSOR ALTERS

#### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

ADDKVA

PURPOSE:

INSERT AN ATTRIBUTE KEYWORD

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

SOURCE FILE TYPE:

**VDDKAV** . PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION: --------

CHECKS FOR THE PRESENCE OF A KEYWORD ON AN ATTRIBUTE, AND IF NOT FOUND, INSERTS IT.

#### **ARGUMENTS:**

AC-NO = DSPLY [S9(9)]

KW-NO = DSPLY [S9(9)]

RETURN-CODE - DSPLY [S9(9)]

## INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

## ROUTINES CALLED:

INSKWAC - INSERT A RECORD INTO AC KEYWORD

UERROR

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

ERRPRO

#### CALLED DIRECTLY BY:

ADDKW

- ADDS KEYWORDS FOR COMMANDS USING "ADD KEYWORD" (OPTIONAL)

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: ADDKVE

PURPOSE: INSERT AN ENTITY KEYWORD

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE

SOURCE FILE: ADDKVE SOURCE FILE TYPE: .PRC

**HOST:** 

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

## DESCRIPTION:

CHECKS FOR THE PRESENCE OF A KEYWORD ON AN ENTITY, AND IF NOT FOUND, INSERTS IT.

#### **ARGUMENTS:**

KW-NO = DSPLY [S9(9)]

EC-NO = DSPLY [S9(9)]

RETURN-CODE = DSPLY [S9(9)]

# INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR

ERRPRO - PROCESS ERROR INCLUDE FILE

## ROUTINES CALLED:

INSKWEC - INSERT A RECORD INTO EC KEYWORD

UERROR - ISSUE A MESSAGE TO THE USER. CONSIDERED A

**ERRPRO** 

## CALLED DIRECTLY BY:

ADDKW - ADDS KEYWORDS FOR COMMANDS USING "ADD

KEYWORD" (OPTIONAL)

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: ADDKWR

INSERT A RELATION KEYWORD PURPOSE:

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE

SOURCE FILE: SOURCE FILE TYPE: ADDKWR . PRC

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

## **DESCRIPTION:**

CHECKS FOR THE PRESENCE OF A KEYWORD ON A RELATION CLASS, AND IF NOT FOUND, INSERTS IT.

## **ARGUMENTS:**

KW-NO = DSPLY [S9(9)]

RC-NO = DSPLY [S9(9)]

RETURN-CODE = DSPLY [S9(9)]

#### INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

- PROCESS ERROR INCLUDE FILE

#### ROUTINES CALLED: ------

INSKWRC - INSERT A RECORD INTO RC KEYWORD

ERRPRO

## CALLED DIRECTLY BY:

ADDKW - ADDS KEYWORDS FOR COMMANDS USING "ADD

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

ADDMAP

PURPOSE:

ADD A CS-IS MAPPING

The state of the s

LANGUAGE:

MODULE TYPE: FUNCTION TYPE:

FUNCTION INT ()

SOURCE FILE:

ADDMAP

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** -----

SYNOPSIS

ADDHAP (MAP TYPE, STAG NO, SRC NO,

BAC NO, BSM FLAG)

COBOL

CALL "ADDMAP"

USING

MAP-TYPE TAG-NO RC-NO

AC-NO SM-FLAG.

**FORTRAN** 

CALL ADDMAP (MAPTYPE, TAGNO, RCNO,

ACNO, SMFLAG)

INPUT:

CHAR MAP TYPE[]

INT \*TAG NO

INT \*RC NO

INT \*AC NO

INT \*SM FLAG;

**OUTPUT:** 

and the state of t

#### DESCRIPTION

ADDMAP ADDS CS-IS MAPPING TO THE CDM AFTER EXTRACTING VARIOUS TOKENS

FROM THEIR LISTS AND VERIFYING THAT THE DATABASE NAME EXISTS. IF

SM-FLAG EQUALS ZERO, PROCESS THE COMPLETE LIST, OTHERVISE PERFORM

1 MAPPING.

#### **ARGUMENTS:**

MAP TYPE -CHAR []

INT \* TAG NO = TAG NO = INT \*

RC NO = INT \*

AC NO = INT \*

SM\_FLAG = INT \*

## INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS LISTID - PROVIDES LIST OF PARSED OF

- PROVIDES LIST OF PARSED OBJECTS

## ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

TOLOWER

STRNCMP

CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.

CPFCOR - ACCESS A TOKEN IN A CORRESPONDING NAMED LIST

- MAP A RELATION CLASS TO A SET MAPRC

MAPADF - MAP ON AUC TO A DATA FIELD

SPRINTF

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

MAPASET - MAP AN AUC TO A SET

TOUPPER

VERDB - VERIFY THE EXISTENCE OF A DATA BASE IN THE CDM

## CALLED DIRECTLY BY:

ALTHAP - ALTER MAP COMMAND PROCESSOR
CRIMAP - CREATE MAP COMMAND PROCESSOR

- CREATE MAP COMMAND PROCESSOR

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## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

HAME: ADDMIG

PURPOSE: PROCESS THE ADD MIGRATES...SET..CLAUSE

Language : VAX-11 COBOL MODULE TYPE: SURROUTINE

SOUNCE FILE: SOURCE FILE: SOURCE FILE TYPE: ADDMIG . PRC

HOST:

EUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

## DESCRIPTION:

CONTROLS THE "ADD MIGRATES" CLAUSE OF THE CREATE AND ALTER RELATION COMMANDS. MIGRATES THE KEY CLASS FROM THE INDEPENDENT TO THE DEPENDENT ENTITY CLASS. THE MIGRATES CLAUSE IS OPTIONAL. THE CLAUSE CONSISTS OF A KEY-CLASS MANE AND AM OPTIONAL SET CLAUSE.

#### ARGUMENTS:

MODEL-MO = DSPLY [89(9)]RC-MO = DSPLY [89(9)]IMD-EC-MO = DSPLY [89(9)]DEP-EC-NO = DSPLY [89(9)]RETURN-CODE - DSPLY [89(9)]

#### INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR
LISTMOS - VALID LIST NUMBERS
UNIQUEO - UNIQUE NUMBER ASSIGNMENTS FOR CDM OBJECTS
RENLIST - LIST OF ATTRIBUTES AND INHERITED TAG PAIRS
ERRPRO - PROCESS ERROR INCLUDE FILE

#### ROUTINES CALLED:

CPFONE	- EXTRACT THE FIRST TOKEN FROM THE NAMED LIST
VERKC	- VERIFY THE EXISTENCE OF A KEY CLASS IN A MODEL
UERROR	- ISSUE A MESSAGE TO THE USER, CONSIDERED A
VERRCC	- verify if the relation class is complete.
MKRNLST	- FETCH LIST OF RENAME PAIRS FOR
	migratessetclause
CKRNLST	- SEARCHES THE TABLE OF RENAME PAIR LOOKING FOR
	AN OLD-TAG ENTRY.
VERAUC	- VERIFY THE EXISTENCE OF AN ATTRIBUTE USE CLASS
GETNNUM	-
INSAUC	- INSERT A RECORD INTO ATTRIBUTE_USE_CL
INSIAUC	- INSERT A RECORD INTO INHERITED_ATT_USE
Inscrc	- INSERT A RECORD INTO COMPLETE_RELATION
ERRPRO	_

## CALLED DIRECTLY BY:

ALTREL - CONTROLS PROCESSING LOGIC FOR THE ALTER
RELATION COMMAND
CRTREL - CONTROLS THE LOGIC FOR VALIDATING AND CREATING
A NEW RELATION CLA

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME: ADDNOORR

PURPOSE: ADD A TOKEN TO A CORRESPONDING LISTS NEXT

ENTRY

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: CPF
SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

SYNOPSIS

C -- ADDNCORR(CORR LST, LST, TOKEN)

COBOL -- CALL "ADDNCORR" USING

CORR-LST,

LIST,

TOKEN)

FORTRAN -- CALL ADDNCORR(CLIST, LIST, TOKEN)

INPUT:

LST1

-- THE CORRESPONDING LIST, ITS LAST ENTRY

INDEX WILL BE USED TO DETERMINE THE

INDEX OF LST2

LST2 -- THE LIST TO WHICH THE TOKEN WILL BE ADDED

TOKEN --

# THE CHARACTER STRING REPRESENTING THE TOKEN ISOLATED BY THE PARSER

**OUTPUT:** 

DESCRIPTION

ADD A STRING TO THE LIST IDENTIFIED BY LST2 IN THE POSITION CORRESPONDING TO THE POSITION AFTER THE LAST USED ENTRY OF THE LIST IDENTIFIED BY LST1.

#### **ARGUMENTS:**

------

LST1 = INT LST2 = INT

STRING - CHAR \*

## INCLUDE FILES:

LISTS - PROVIDES THE DIMENSIONS OF THE NDDL LISTS

NDDL - \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

## ROUTINES CALLED:

STRLEN

STRLEN

#### CALLED DIRECTLY BY:

YYPARSE - \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

#### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME: ADDWSTD

PURPOSE: ADDS A USER DEFINED DATA TYPE

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE SOURCE FILE: ADDMSTD .COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

## DESCRIPTION:

THIS ROUTINE ADDS A "USER" DEFINED DATA TYPE

AFTER VERIFYING THAT THE DATA TYPE TO BE ADDED DOES NOT ALREADY EXIST, CHECK IF A LEGAL DATA TYPE, WITH CORRECT DECIMAL SPECIFICATIONS BEFORE INSERTING, AS A "USER" DEFINED DATA TYPE.

# ARGUMENTS:

DOM-NO = DSPLY [S9(9)]

DATA-TYPE-NAME = DSPLY [X(30)]

TYPE-ID = DSPLY [X]

MAX-SIZE = DSPLY [S9(9)]

NO-OF-DEC = DSPLY [S9(9)]

RETURN-STATUS = DSPLY [S9(9)]

#### ROUTINES CALLED:

VERDT - VERIFY THE EXISTENCE OF A USER DEFINED DATA TYPE

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

VERTYF - verifies that a type identification for a data

type is valid.

INSDT - INSERT A RECORD INTO USER DEF DATA TYPE

#### CALLED DIRECTLY BY:

ADDDT - PROGRAM MAME

USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

NAME:

ADDOAC

PURPOSE:

ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND

AS ATT USE CLASS

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SUBROUTIME SOURCE FILE: ADDOAC SOURCE FILE TYPE: .COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

GIVEN AN ATTRIBUTE NAME, ADD IT AS AN OWNED ATTRIBUTE AND AS AN ATTRIBUTE USE CLASS.

#### **ARGUMENTS:**

MODEL-NO = DSPLY [S9(9)]EC-NO = DSPLY [S9(9)]AC-NAME = DSPLY [X(30)]NEW-TAG-NO = DSPLY [S9(9)]

## INCLUDE FILES:

UNIQUEO - UNIQUE NUMBER ASSIGNMENTS FOR CDM OBJECTS ERRPRO - PROCESS ERROR INCLUDE FILE

#### ROUTINES CALLED:

VERATT

- VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A

MODEL

VEROAC - verify the existence of an owned attribute

class for an entity.

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A INSOAC - INSERT A RECORD INTO OWNED ATTRIBUTE

GETNNUM

\_

INSAUC ERRPRO - INSERT A RECORD INTO ATTRIBUTE\_USE\_CL

## CALLED DIRECTLY BY:

ADDATT

- ASSOCIATES EXISTING ATT WITH ENTITY IN CREAT

ENTITY COMMAND

ADDKM

- ADDS SINGLE KEY CLASS MEMBER(AUC) TO KEY CLASS

FOR ADD KEY

COPYAC

- CREATE AN ATTRIBUTE, ASSOCIATE WITH ENTITY, ADD

KEY CLASSES

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME: ADDPARM

PURPOSE: WRITES 80 CHAR NDDL COMMAND WITH

PARAMENTERS CHECKS/DELIMIT

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE SOURCE FILE: ADDPARM

HOST:

SUBSYSTEM: CDM

SOURCE FILE TYPE:

. COB

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

## DESCRIPTION:

Strings a parameter and a delimiter into an 80-character NDDL command line. Performs line overflow checking and indentation of continued command lines. Writes a command line if:

- 1) routine is called with delimiter = semicolon (end of command)
- 2) parameter will not fit on current command line
- 3) routine is called with parameter and delimiter both blank

#### **ARGUMENTS:**

TEXT-PARM = DSPLY [X(60)]DELIMTR - DSPLY [X]

#### ROUTINES CALLED:

WRTLIN - THIS ROUTINE WRITES A NDDL COMMAND LINE (80 CHARACTERS)

#### CALLED DIRECTLY BY:

CERELS - GENERATES NDDL COMMANDS ON A FILE FOR ALL

ENTITIES IN A RELATION.

CESTRUC - GENERATES NDDL COMMANDS ON A FILE FOR ALL

	ENTITIES FOR THE STRUCT
CMBENT	- CONROLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND.
CMBRKY	- SELECT AND GENERATE RELATION CLASS KEYWORDS
CPYMOD	- CONTROLS THE PROCESSING LOGIC FOR THE COPY HODEL COMMAND.
DEPFROM	- GENERATE CREATE RELATION, DESCRIBE COMMANDS IN THE TO-MODEL
FCOPATT	- GENERATE NDDL COMMANDS FROM A COPY ATTRIBUTE COMMAND
<b>FMTIAUC</b>	- FORMATS A LINE FOR THESET CLAUSE
FRTOREL	- DETERMINE IF RELATION EXISTS BETWEEN INTRA-MOD ENTITIES
GENAKW	- RETRIEVE ALL KEYWORDS FOR AN ATTRIBUTE CLASS
GENALI	- GENERATE A CREATE ALIAS COMMAND FOR AN OBJECT TYPE
<b>GENALT1</b>	- GENERATE AN ALTER ENTITY ADD KEY CLASS COMMAND
GENALTE	- GENERATE AN ALTER ENTITY ADD KEY CLASS COMMAND
GENATT	- GENERATE A CREATE ATTRIBUTE COMMAND
GENDESC	- GENERATED NDDL DESCRIBE COMMANDS FOR A GIVEN OBJECT TYPE AND NO
GENEKW	- SELECT KEYWORD FOR ENTITY AND CREATE KEYWORD PHRASE FOR CRT ENT
GENENT	- GENERATE A CREATE ENTITYOWNED ATTRIBUTEKEYWORD COMMAND
GENOA	- SELECT OWNED ATT FOR ENTITY AND CREATES OWNED ATT FOR CRT ENT
GENREL	- GENERATE CREATE RELATIONMIGRATESKEYWORD COMMAND
GENRKW	- SELECT KEYWORDS FOR RELATION CREATES KW PHRASE FOR CREATE RC
GENRNME	- FORMAT THE CREATE RELATION CLAUSE
INDFROM	- RETRIEVES RELATIONS, DETERMINES IND EC AND GENERATES NDDL
MIGREL	- GENERATE A MIGRATES CLAUSE FOR A CREATE RELATION COMMAND
MRGMOD	- MERGE TWO IDEF MODELS INTO ONE
MRGMOD2	- CONTROL THE LOGIC FOR PROCESSING THE REMAINING MODEL_2

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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#### NDDL COMMAND PROCESSOR Module Documentation

NAME: ADDRCEC

PURPOSE: POPULATES THE RC-DEPKC TABLE FOR ALL

RELATIONS IN THE MODEL

LANGUAGE: VAX-11 COBOL
MODULE TYPE: SUBROUTINE
SOURCE FILE: ADDRCEC
SOURCE FILE TYPE: .COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

ADDRCEC populates the RC-DEPKC table.

The table contains information for every relation in a model in sequence by level, rc-no, and dep-ec-no. For each rc-o and dep-ec-no added to the table, an NDML routine is called to select all the key classes for the dep-ec which inherit attributes via the migrated relation (rc-no).

ADDRCEC populates the RC-DEPKC table.

The table contains information for every relation in a model in sequence by level, rc-no, and dep-ec-no. For each rc-o and dep-ec-no added to the table, an NDML routine is called to select all the key classes for the dep-ec which inherit attributes via the migrated relation (rc-no).

## **ARGUMENTS:**

MOD-NO = DSPLY [S9(9)]
MOD-NAME = DSPLY [X(30)]
RC-NO = DSPLY [S9(9)]
DEP-EC-NO = DSPLY [S9(9)]
RC-DEPKC-LIST = RECRD
RTN-STATUS = DSPLY [S9(9)]

#### INCLUDE FILES:

KEYLIST - DATA STRUCTURE FOR MDDL MODELLING COMMANDS RCDEPKC - LIST OF KEYS MIGRATED VIA A RELATION

## ROUTINES CALLED:

SELIKEY - RETRIEVE ALL INHERITED KEYS FOR A GIVEN EC AND

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

## CALLED DIRECTLY BY:

BLRCKC - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND BLRCKC1 - FOR EACH LEVEL OF RELATIONS IN STRUCTURE

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: ADDRIUM

PURPOSE: ADD A AVAILABLE NO OF A POOL NO BACK TO

NO LINKED

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: ADDRMUM

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

LIST DATA STRUCTURE.

SYNOPSIS

C -- ADDRNUM(POOL NO, AVAIL NO)

COBOL -- CALL "ADDRNUM" USING POOL-NO.

AVAIL-NO.

FORTRAN -- CALL ADDRNUM(POOLNO, AVAILNO)

INPUT:

INT \*POOL\_NO;
INT \*AVAIL NO;

**OUTPUT:** 

DESCRPIPTION

THIS ROUTINE PUT THE AVAILABLE NO OF THE POOL NO BACK

TO THE NO

LINKED LIST. THE ROUTINE CALLS 'ALLOC' FUNCTION TO

ALLOCATE SPACE

FOR STORING THE AVAIL NO AND POOL NO.

**ARGUMENTS:** 

POOL NO = INT \*

AVAIL\_NO - INT .

## BOUTINES CALLED:

- STORE A AVAILABLE NO OF A POOL NO BACK TO NO LINKED

ERRPRO

## CALLED DIRECTLY BY:

DELDEDF	- DELETE ALL DATA FIELD ASSOCIATIONS VITH THE DATABASE
DELDERT	- DELETE ALL RECORD TYPE ASSOCIATIONS WITH THE
DELDOST	- DELETE ALL RECORD SETS' ASSOCIATIONS VITH THE
DELDTIO	- DELETE ALL DATA TYPES ASSOCIATED VITE A DOMAIN
DELMORC	- DELETE ALL KEY CLASSES AND IMMERITED KEYS FOR AN ENTITY
DELMORC	- DELETE ALL RELATION CLASSES FOR AN ENTITY
DRPATT	- CONTROLS THE DROPPING OF USER SPECIFIED ATTRIBUTE CLASSES FROM TH
DRPDS	- CONTROLS THE PROCESSING LOGIC FOR DELETING THE DATA BASE.
DRPDIA	- DELETE DATA ITEM DESCRIPTION TEXTS ASSOCIATED VITE VIEW
DRPDOM	- PROGRAM MANE
DRPENT	- CONTROL THE PROCESSING LOGIC FOR DELETING METITIES.
DRPFLD	- CONTROLS THE PROCESSING LOGIC FOR DROPPING A
DRPEC	- CONTROLS THE PROCESSING LOGIC FOR THE "DROP ERY
DRPKVC	- OUTAIN THE USED IDENTIFIED KEYVORD, THEN DROP THEIR ASSOCIATIONS.
DRPHOD	- CONTROLS THE PROCESSING LOGIC TO DROP A NODEL
DRPRCE	- DROP A RELATION CLASS FOR AN ENTITY BEING BROPPED
DRPROC	- CONTROLS THE PROCESSING LOGIC FOR THE DROP RECORD COMMAND.
DRPREL	- CONTROLS THE PROCESSING LOGIC FOR THE 'DROP RELATION' COMMAND
DRPSST	- CONTROLS THE PROCESSING LOGIC FOR DELETING A
DRPVIEW	- DROP THE VIEW

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FHDACH - DELETE ALL ATTRIBUTE CLASSES FROM A GIVEN MODEL PHDECH - DELETES ALL ENTITIES AND ASSOCIATED OBJECTS FOR A GIVEN MODEL - DELETE ALL ASSOCIATIONS IN THE CDM FOR A SET SELRSET BEING DROPPED - DELETES ALL OWNER/MEMBERS OF THE RECORD TYPE SELSTM BEING DROPPED DELAUC - DELETE INHERITED\_ATT\_USE, KEY\_CLASS\_NEMBER, - CONTROLS THE DELETING OF DATA FIELDS DELDFL2 - DELETE MIGRATING KEY CLASS DELMICK - DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER DELMTEC - DELETE NIGRATING KEY CLASS DLNIGRC

#### USED IN MAIN PROGRAM(S):

HDDL/MAIN - MAIN PROGRAM FOR THE HDDL COMMAND PROCESSOR

MAME:

ADDSTD

PURPOSE: LANGUAGE: PROGRAM MANE

MODULE TYPE:

VAX-11 COBOL SUBBOUTINE

SOURCE FILE:

ADDSTD

SOURCE FILE TYPE:

.008

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: P841100

## DESCRIPTION:

THIS ROUTINE ADDS THE STD DATA TYPE FOR A DOMAIN CLASS.

VERIFY THAT THE DATA TYPE IS DEFINED AS "STD", THEN MAKE SURE THAT THE DATA-TYPE HAME TO BE ADDED DOES NOT PREVIOUSLY EXIST. NOW CHECK IF IT IS A LEGAL TYPE AND HAS CORRECT DECIMAL SPECIFICATIONS. NOW INSERT THE DATA TYPE.

## ARGUNENTS:

DOM-NO = DEPLY [89(9)]
DATA-TYPE-HAME = DEPLY [X(30)]
TYPE-ID = DEPLY [X]
MAX-SIZE = DEPLY [89(9)]
NO-OF-DEC = DEPLY [89(9)]
RETURN-STATUS = DEPLY [89(9)]

## ROUTINES CALLED:

VERSDT - For a given domain number, return its standard data type name.

UERROR - ISSUE A MESSAGE TO THE USER, COMSIDERED A

VERDY - VERIFY THE EXISTENCE OF A USER DEFINED DATA TYPE
- VERTYP - verifies that a type identification for a data
type is valid.

INSDT - INSERT A RECORD INTO USER\_DEF\_DATA\_TYPE

CALLED DIRECTLY BY:

ADDDT - PROGRAM MANE

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME: ADDTXT

PURPOSE: THIS BOUTINE VRITES SO CHARACTERS OF

DESCRIPTIVE TEXT

LANGUAGE:

MODULE TYPE: PUNCTION
PUNCTION TYPE: INT ()
SOUNCE FILE: ADDITY
SOUNCE FILE TYPE: .C

MOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION CHOUP: P\$41100

DESCRIPTION:

TO THE DEER'S FILE OF GENERATED HDDL COMMANDS.

FIRST LINE OF TEXT IS PRECEEDED BY A DOUBLE QUOTE

MARK IN COLUMN 1 AND A NEVLINE CHARACTER IN COLUMN 2.

THE LAST LINE OF TEXT IS FOLLOWED BY THE SAME THING.

NOTE -- THE DESCRIBE COMMAND PROCESSOR WILL INCLUDE

THE TRAILING BLANKS BETVEEN THE QUOTE

AND THE END OF THE LINE AS PART OF THE

DESCRIPTIVE TEXT IF THE NEVLINE

CHARACTER IS ONITTED.

SYNOPSIS

C -- ADDTXT (TXT-LINE, FLAG)

COBOL -- CALL "ADDTXT" USING TXT-LINE GUOTE-FLAG.

PORTRAN -- CALL ADDTXT (TXTLIN, FLAG)

INPUT:

CMAR 'TXT-LIME[80] INT FLAG

**OUTPUT:** 

ARGUMENTS:

THE LINE - CH CHAR .

ROUTINES CALLED:

VRTLIN - THIS ROUTINE VRITES A MDDL COMMAND LINE (80

CHARACTERS)

CALLED DIRECTLY BY:

GENDESC - GENERATED NOOL DESCRIBE CONMANDS FOR A GIVEN

OBJECT TYPE AND NO

USED IN MAIN PROGRAM(S):

HDDL/MAIN - MAIN PROGRAM FOR THE HDDL COMMAND PROCESSOR

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MANE:

ADD CORR

PURPOSE:

ADD A TOKEN TO CORRESPONDING LIST

LANGUAGE:

C

MODULE TYPE: FUNCTION TYPE: PUNCTION INT ()

SOURCE FILE:

CPF

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION CHOUP: P\$41100

DESCRIPTION:

SYNOPSIS

C -- ADD\_CORR(CORR\_LIST, LIST, TOKEN)

0080L

-- CALL "ADD CORR" USING

CORR-LIST.

LIST.

TOKEN.

PORTRAH

CALL ADD CORR(CLIST, LIST, TOKEN)

INPUT:

LST1 -

THE INTEGER IDENTIFYING THE CORRESPONDING LIST.
NOT THE LIST TO WHICH THE TOKEN WILL

BE ADDED TO.

LST2 - THE INTEGER IDENTIFYING THE LIST TO WHICH THE

TOKEN VILL BE ADDED TO

STRING - THE CHARACTER STRING REPRESENTING THE TOKEN TO BE ADDED TO THE END OF LET2

#### **OUTPUT:**

#### DESCRIPTION

ADD THE TOKEN TO THE TOKEN ACCUMULATOR STRING AND GET ITS LENGTH. THEN USING THE CURRENT NOW INDEX OF THE CORRESPONDING LIST, STORE THE POINTERS TO THE ACCUMULATOR STRING IN THE LIST DATA STRUCTURE

#### ARGUMENTS:

LST1 -LST2 -STRING -INT INT

CHAR .

## INCLUDE FILES:

LISTS - PROVIDES THE DIMENSIONS OF THE NDOL LISTS - \*\*\*\* PURPOSE NOT POUND BY STRIPPER \*\*\*\*

## NOUTIMES CALLED:

STRLEN STECAT

## CALLED DIRECTLY BY:

TYPARSE - \*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

#### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME: ADD TO CHT

PURPOSE: INCREMENT A LIST COUNTER

LANGUAGE: C

MODULE TYPE: PUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: CPF

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

C -- ADD\_TO\_CWT(LIST1, LIST2)

COBOL -- CALL "ADD\_TO\_CHT" USING

LIST1.

LIST2.

FORTRAM -- CALL ADD\_TO\_CHT (LIST1, LIST2)

INPUT:

LST1 -- THE LIST WHICH WILL BE USED AS A COUNTER

LST2 -- THE LIST WHICH GIVES THE CURRENT INDEX INTO LIST1

OUTPUT:

DESCRIPTION

AN ENTRY IN LIST1 WILL BE A COUNTER TO THE NUMBER OF TIMES THIS ROUTINE IS CALLED. THE CURRENT ROW OF LIST 2 WILL BE USED AS THE INDEX INTO LIST1.

## **ARGUNENTS:**

LIST1 - INT LIST2 - INT

## INCLUDE FILES:

LISTS - PROVIDES THE DIMENSIONS OF THE MDDL LISTS

MDDL - \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

## ROUTINES CALLED:

ERRPRO

#### CALLED DIRECTLY BY:

YYPARSE - \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

## USED IN MAIN PROGRAM(S):

MDDL/HAIN - HAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

ADD TO LST

PURPOSE:

ADD A SINGLE TOKEN TO A PARSER OUTPUT LIST

LANGUAGE:

C

MODULE TYPE: FUNCTION TYPE:

PUNCTION INT ()

SOURCE FILE:

CPF

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

C --

ADD\_TO\_LST(LIST, TOKEN)

COBOL

-- CALL "ADD TO LET" DEING

LIST-NO.

TOKEN.

**FORTRAN** 

CALL ADD\_TO\_LST(LIST, TOKEN)

IMPUT:

LIST

- AN INTEGER IDENTIFYING THE LIST TO WHICH TH TOKEN SHOULD BE ADDED

TOKEN

- A CHARACTER STRING REPRESENTING A SINGLE TOKEN AS ISOLATED BY THE PARSER

OUTPUT:

DESCRIPTION

THE GIVEN TOKEN WILL ADDED TO THE END OF THE SPECIFIED

LIST BY PLACING IT IN A TOKEN ACCUMULATOR STRING AND STORING THE EEGINNING CHARACTER POSITION AND LENGTH IN THE PROPER PLACE IN THE LIST DATA STRUCTURE

ARGUMENTS: -------

LST - INT STRING - CHAR \*

INCLUDE FILES:

LISTS - PROVIDES THE DIMENSIONS OF THE HOOL LISTS
HDDL - \*\*\*\* PURPOSE NOT POUND BY STRIPPER \*\*\*\*

ROUTINES CALLED:

EBRPRO STRLER STRCAT

CALLED DIRECTLY BY:

TYPARSE - " PURPOSE NOT POSED BY STRIPPER "

USED IN MAIN PROGRAM(S):

HDDL/HAIN - HAIN PROGRAM FOR THE HDDL COMMAND PROCESSOR

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HANE:

ADPARM1

PURPORE:

CREATES SO CAMP MODE COMMANDS WITH

PARAMETERS AND DELIMITER

LANGUAGE: MODULE TYPE: AVX-11 COSOF

SOURCE FILE:

SUBSCUTINE ADPARMI

SOUNCE FILE TYPE:

.008

HOST:

SUBSYSTEM:

CDN

SUBDIRECTORY:

DOCUMENTATION GROUP: P841100

### DESCRIPTION:

Strings a parameter and a delimiter into an SC-character MDDL command line. Performs line overflow checking and indentation of continued command lines. Writes a command line if:

- 1) routine is called with delimiter semicolon (end of command)
- 2) parameter will not fit on current command line
- 5) routine is called with parameter and delimiter both blank

Note: This routine is merely a copy of "ADDPARM". The purpose of the copy is to allow multiple commands to be be constructed at the same time.

# ARGUNEUTS

TEXT-PARM - DSPLY [X(60)]

DELINTR - DEPLY [X]

#### ROUTINES CALLED

. . . . . . . . . . . . . . .

- THIS ROUTINE WRITES A NDDL COMMAND LINE (80 CMARACTERS)

### CALLED DIRECTLY BY:

### PS 620141100 1 November 1985

CMBEKW - GENERATE ADD KEYWORD CLAUSE FOR ENTITY KEYWORDS - GENERATE COMMANDS FOR ATTRIBUTES, ITS

KEYVORDS, ALIAS, DESC

GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.

### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

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MAME: PURPOSE: THIS ROUTINE ADDS A ROW TO THE UNBOUNDED KEY CLASS LIST LANGUAGE: MODULE TYPE: PUNCTION FUNCTION TYPE: INT () SOURCE FILE: AECROV SOURCE FILE TYPE: .C MOST: SUBSYSTEM: CIM SUBDIRECTORY: DOCUMENTATION GROUP: P\$41100 DESCRIPTION: SYMOPSIS AKCHOW(WEC NO, WKC\_NO, WKC\_NAME, C WECH TAG NO. TECH TAG MANE); CALL "AKCROW" COBOL USING EC-NO. KC-NO. KC-MANE. KCM-TAG-NO, KCH-TAG-NAME. FORTRAM CALL AKCROV(ECNO, KCNO, KCNAME. KCHTAGNO, KCHTAGNAME) INPUT: INT \*EC NO ; INT \*KC NO : CHAR \*KC MAME[30]; INT \*KCH TAG\_NO ; CHAR \*KM TAG NAME[30]; **OUTPUT:** 

THIS ROUTINE ADDS A ROW TO THE UNBOUNDED KEY CLASS LIST

**DESCRPIPTION:** 

### AND BC\_NO, TAG\_NO AND BOX TAG\_NO

### LAGUMENTS:

NC NO -NC HAME . CHAR . CHAR . SON TAG NO . INT . INT . CHAR .

### INCLUDE FILES:

KEYLIST - DATA STRUCTURE FOR MDDL MODELLING COMMANDS

### ROUTINES CALLED:

SPRINTY

PRINTY

ADDEG - ADD ECH TAG NUMBER AND HAME TO STRUCTURE

ADDEC - ADD THE ENTITY NAME TO THE TREE LIST STRUCTURE ADDECLS - ADD KEY INFO TO THE UNBOUNDED KEY\_CLASS\_LIST

STRUCTURE

### CALLED DIRECTLY BY:

BLKCL1 - STORE ALL KEY CLASS INFO FOR AN ENTITY IN A LIST BLKCLST - SELECT AND STORE KEY CLASS INFO FOR A GIVEN

ENTITY

DPKCLST - CREATE AN KEY\_CLASS\_LIST TABLE CONTAINING ALL

THE ENTITY

### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

ALLATT

PURPOSE:

SELECT ALL THE ATTRIBUTES IN FROM-MODEL

AND GENERATE

LANGUAGE:

NODULE TYPE: FUNCTION TYPE: SOURCE FILE:

PUNCTION

INT ()

SOURCE FILE TYPE:

ALLATT .C

MOST:

SUBSYSTEM:

COM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

NDDL COMMANDS TO CREATE THE ATTRIBUTES .

THEIR KEYVORDS.

ALIAS AND DESCRIPTIONS IN THE TO-HODEL

SYMOPSIS

C

ALLATT (SMODEL NO. SMODEL NAME.

SKEYWORD FLAG.

WALIAS\_FLAG, WDESC\_FLAG) ;

USING

COBOL

CALL "ALLATT"

MODEL-NO. MODEL-NAME. KEYWORD-FLAG,

ALIAS-FLAG.

DESC-FLAG.

CALL ALLATT (MODELNO, MODELNAME, FORTRAN

KEYWORDFLAG, ALIASFLAG,

DESCFLAG)

INPUT:

INT \*MODEL NO ;

CHAR \*MODEL NAME ;

INT \*KEYWORD FLAG ;

INT \*ALIAS FLAG ;

### INT \*DESC\_FLAG ;

### DESCRPIPTION:

THIS NOUTINE USES CRACLE CALLS TO RETRIEVE RECORDS PROM ATTRIBUTE\_CLASS, ATTRIBUTE\_NAME, DONAIN\_CLASS, THEN USE THE

INFORMATIONS TO GENERATE NDOL COMMAND STATEMENT.

#### ARGUMENTS:

MODEL\_NO = INT \*

MODEL\_NAME = CHAR \*

KEYWORD\_FLAG = CHAR \*

ALIAS\_FLAG = CHAR \*

#### ROUTINES CALLED:

COSQLS - ORACLE ROUTINE - HANDLE ANY ERROR CODE FROM ORACLE. COPETCH - ORACLE ROUTINE STRUCKP - GENERATE A CREATE ATTRIBUTE.. COMMAND GENATT STRNCPY GENDESC - GENERATED NDDL DESCRIBE COMMANDS FOR A GIVEN OBJECT TYPE AND NO GENALI - GENERATE A CREATE ALIAS COMMAND FOR AN OBJECT TYPE COEXEC - ORACLE ROUTINE COBINDN - ORACLE ROUTINE CODFINN - ORACLE ROUTINE

#### CALLED DIRECTLY BY:

CPYMOD - CONTROLS THE PROCESSING LOGIC FOR THE COPY

MODEL COMMAND.

MRGMOD1 - COPY MODEL-1 INTO A NEW MODEL (MODEL-3)

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MANE: ALLENT

PURPOSE: SELECT ALL THE ATTRIBUTES IN PROM-MODEL

AND GENERATE

LANGUAGE:

MODULE TYPE: PUNCTION PUNCTION TYPE: INT () SOUNCE PILE: ALLENT

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION CHOUP: P841100

DESCRIPTION:

NDOL COMMANDS TO CREATE THE ENTITY, THEIR

KEYWORDS,

ALIAS AND DESCRIPTIONS IN THE TO-MODEL

SYMOPSIS

C -- ALLENT(UMODEL\_NO, UMODEL NAME,

WKEYWORD FLAG.

WALIAS FLAG, WDESC FLAG) ;

COBOL -- CALL "ALLENT" USING

MODEL-NO, MODEL-NAME, KEYWORD-FLAG, ALIAS-FLAG, DESC-FLAG.

FORTRAN -- CALL ALLENT(MODELNO, MODELNAME,

KEYWORDFLAG, ALIASFLAG, DESCFLAG)

INPUT:

INT \*MODEL NO ;

CHAR \*MODEL\_NAME ;
INT \*KEYWORD FLAG ;

INT \*ALIAS FLAG ;

### INT 'BOOC FLAG :

### DESCRIPTION:

THIS ROUTINE VERS CRACLE CALLS TO RETRIEVE RECORDS FROM ENTITY\_CLASS, ENTITY\_MANE THEN USE THE INFORMATIONS TO COMPATE HOOL COMMAND STATEMENT.

#### ARGUMENTS:

MODEL NO -INT . MODEL\_MAKE -CHAR . KEYVOED FLAG -CHAR . ALIAS PLAG -CHAR . DESC FLAG -

### ROUTINES CALLED:

008QL3 - ORACLE ROUTINE

ERRRPT - MANDLE ANY ERROR CODE FROM ORACLE.

- ORACLE ROUTINE COFETCH

STRUCKP

- THIS ROUTINE CREATES A NOW IN THE UNBOUNDED BLECLST

EC LIST

- GENERATE A CREATE ENTITY . . OWNED GENENT

ATTRIBUTE . KEYWORD COMMAND

STRNCPY

- GENERATED MDDL DESCRIBE COMMANDS FOR A GIVEN GENDESC

OBJECT TYPE AND NO

- GENERATE A CREATE ALIAS COMMAND FOR AN OBJECT GENALI

TYPE

- ORACLE ROUTINE COEXEC COBINDN - ORACLE ROUTINE CODFINN - ORACLE ROUTINE

#### CALLED DIRECTLY BY:

CPYMOD - CONTROLS THE PROCESSING LOGIC FOR THE COPY

MODEL COMMAND.

MRGMOD1 - COPY MODEL-1 INTO A NEW MODEL (MODEL-3)

USED IN MAIN PROGRAM(S):

3-170

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HORL/MAIN - MAIN PROGRAM FOR THE MODE COMMAND PROCESSOR

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HAME:

PURPORE:

GENERATES KEY CLASS FOR AN ENTITY

LANGUAGE:

VAX-11 COMOL

MODULE TYPE:

SUPROUTIES

SOURCE FILE: SOURCE FILE TYPE:

ALLEY

.008

MOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: P841100

### DESCRIPTION:

THIS THE SHELL ROUTINE TO GENERATE THE KEY CLASS FOR AN ENTITY.

#### **ARGUMENTS:** -----

DEP-EC-MO = DSPLY [S9(9)]

DEP-EC-MAME - DSPLY [X(30)] RC-NO = DSPLY [89(9)]

RC-DEPKC-LIST - RECRD

#### INCLUDE FILES:

KEYLIST - DATA STRUCTURE FOR NDDL MODELLING COMMANDS

ECLIST - CONTAINS A LIST OF ENTITY CLASS NUMBERS

RCDEPKC - LIST OF KEYS MIGRATED VIA A RELATION

ERRPRO - PROCESS ERROR INCLUDE FILE

#### ROUTINES CALLED:

- checks each of the OWN-ec's key classes against

the RC-DEPKC LIST

GENALT1 - GENERATE AN ALTER ENTITY . . ADD KEY CLASS COMMAND

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CHKINE - checks the RC-DEPEC table and determines when a key class can be

ERRPRO

### CALLED DIRECTLY BY:

ALLREL - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

GENERATE

DEPREL - FOR EACH LEVEL OF RELATIONS IN STRUCTURE

GENERATE

MRGMOD2 - CONTROL THE LOGIC FOR PROCESSING THE REMAINING

MODEL\_2

### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

ALLREL

PURPOSE:

FOR EACH LEVEL OF RELATIONS IN FRON-MODEL

GENERATE

LANGUAGE:

MODULE TYPE:

PUNCTION

FUNCTION TYPE:

INT () ALLREL

SOURCE FILE: SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDN

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THE NDDL COMMANDS TO CREATE THE RELATIONSS

, MIGRATE

ATTRIBUTE AND ADD THE KEY CLASSES FOR EACH

DEPENDENT

ENTITY IN THE LEVEL

SYNOPSIS

C

ALLREL (SMODEL NO, SMODEL NAME,

WKEYWORD FLAG.

WDESC FLAG. STATUS) ;

COBOL

CALL "ALLREL"

USING

MODEL-NO. MODEL-NAME.

KEYWORD-FLAG.

DESC-FLAG

STATUS.

FORTRAN

CALL ALLREL (MODELNO, MODELNAME,

KEYWORDFLAG, DESCFLAG,

STATUS)

INPUT:

INT \*MODEL\_MO; CHAR \*MODEL\_HAME; INT \*ERYVORD FLAG; INT \*DESC FLAG; INT \*STATOS;

### DESCRPIPTION:

#### ARGUMENTS:

MODEL\_NO = INT \*

MODEL\_NAME = CHAR \*

KEYWORD\_FLAG = CHAR \*

DESC\_FLAG = CHAR \*

RC\_DEPKC\_LIST = INT \*

#### ROUTINES CALLED:

BLRCKC - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND COSQL3 - ORACLE BOUTINE ERRRPT - HANDLE ANY ERROR CODE FROM ORACLE, COPETCH - ORACLE ROUTIME GETECMM - THIS ROUTINE SEARCHES THE UNBOUNDED EC LIST DATA GENREL - GENERATE CREATE RELATION .. NIGRATES .. KEYWORD COMMAND GENDESC - GENERATED NDOL DESCRIBE COMMANDS FOR A GIVEN OBJECT TYPE AND NO ALLKEY - GENERATES KEY CLASS FOR AN ENTITY STRNCPY - ORACLE ROUTINE COEXEC COBINDN - ORACLE ROUTINE CODFINE - ORACLE ROUTINE

#### CALLED DIRECTLY BY:

CPYMOD - CONTROLS THE PROCESSING LOGIC FOR THE COPY MODEL COMMAND.

MRGMOD1 - COPY MODEL-1 INTO A NEW MODEL (MODEL-5)

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

BANE:

ALLVIEW

PURPOSE:

CREATE AN ES-CS-MAPPING FOR AUC TO DATA

LANCHACE:

VAX-11 COBOL SUBSCOTTES

MODULE TYPE: SOUNCE FILE:

VITALEA

SOURCE FILE TYPE:

. PRC

MOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION CHOUP: P\$41100

### DESCRIPTION:

ALLVIEW CREATES THE ES TO CE MAPPING WHEN THE USER VISHES TO MAP EACH ATTRIBUTE USE CLASS OF AN ENTITY CLASS TO DATA ITEMS IN THE VIEW. DATA ITEM ARE STORED USING THE SAME MAKE AS THE TAG (ATTRIBUTE USE CLASS).

EXECUTE AN MOML SELECT TO RETRIEVE ALL THE ATTRIBUTE USE CLASSES FOR AN ENTITY CLASS. FOR EACH AUC RETRIEVED. GET THE DATA-TYPE-MANE FOR THE DONAIN, THEN CREATE A NEW DATA\_ITEM AND PROJECT DATA ITEM OCCURRENCE.

#### ARGUMENTS:

VIEW-MO = DSPLY [S9(9)]EC-NO = DSPLY [S9(9)]

### INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

VERSUT - For a given domain number, return its standard

data type name.

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

IMEDI - IMEERT A RECORD INTO DATA ITEM

INSPDI - INSERT A RECORD INTO PROJECT DATA ITEM

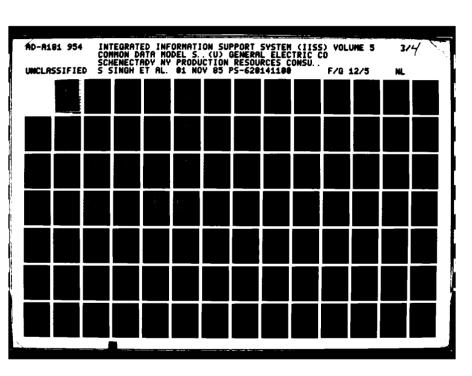
ERRPRO

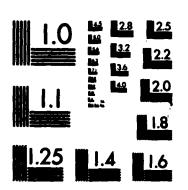
### CALLED DIRECTLY BY:

PIPMON - CREATE A VIEW USING A SINGLE ENTITY CLASS( ES-CS-MAPPING)

### USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR





MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A

MAME:

ALTALI

PURPOSE:

CONTROLS ALTER ALIAS PROCESSING (ALIAS TO PRIN OR VICE VERS

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

altali

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

### DESCRIPTION:

CHANGES THE NAME TYPE FROM 'ALIAS' TO 'PRIMARY' AND FROM 'PRIMARY' TO ALIAS FOR AN ENTITY OR ATTRIBUTE.

DEPENDING ON WHETHER THE OBJECT TYPE IS AN ENTITY OR ATTRIBUTE. THIS VERIFIES THE EXISTENCE OF THE OBJECT.

THE PRIM-NAME-TYPE FOR THE OBJECT-ID VILL BECOME 'ALIAS'. THE ALIAS-NAME-TYPE FOR THE ALIAS-ID WILL BECOME 'PRIMARY'.

### **ARGUMENTS:**

MODEL-MO - DSPLY [S9(9)]

#### INCLUDE FILES: \_\_\_\_\_\_

LISTNOS - VALID LIST NUMBERS

### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST LOWUPP - CONVERT A STRING TO UPPER CASE CHARACTERS LOWUPP

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VERNME - verify the existence of an entity class in a model.

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A VERNMA - verify the existence of an attribute class in a

model.

CPFWXT - ACCESS THE WEXT TOKEN IN A PARSER LIST.

UPDECAL - UPDATE MODEL CLASS SET EC NAME TYPE = : 1

UPDACAL - UPDATE MODEL CLASS SET AC NAME TYPE = : 1

### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

ALTATT ...

PURPOSE:

THE ALTER ATTRIBUTE COMMAND PROCESSOR

**ALTERS** 

LANGUAGE:

MODULE TYPE: PUNCTION TYPE:

FUNCTION

SOURCE FILE:

IMT () ALTATT

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

USER SPECIFIED ATTRIBUTES IN THE CDM.

SYNOPSIS

-- ALTATT(#MODEL\_NO, #STATUS)

COBOL

-- CALL "ALTATT"

USING

MODEL-NO

STATUS.

FORTRAN -- CALL ALTATT (MODELNO, STATUS)

INPUT:

INT \*MODEL NO

OUTPUT:

INT \*STATUS

DESCRIPTION

ALTATT EXTRACTS THE ATTRIBUTE CLASS TO BE ALTERED FROM THE LIST,

VERIFIES THAT IT EXISTS, AND MAKES CALLS TO CHANGE THE DOMAIN.

#### DROP KEYVORD AND ADD KEYVORD.

### ARGUMENTS:

MODEL NO -STATUS = INT \*

### INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS LISTID - PROVIDES LIST OF PARSED OF

- PROVIDES LIST OF PARSED OBJECTS

### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

VERATT - VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A

MODEL

- CHANGE THE DONAIN FOR AN ALTERED ATTRIBUTE CHGDOM

SPRINTF

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

ADDKA - ADDS KEYWORDS FOR COMMANDS USING "ADD

KEYWORD" (OPTIONAL)

DRPKW - DROP A KEYWORD ASSOCIATION FROM EITHER AN

ATTRIBUTE, ENTITY OR REL

### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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NAME:

ALTCARD

PURPOSE:

PROCESS CARDINALITY FO USER SPECIFIED

RELATION

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTIME

ALTCARD

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

ALTCARD OBTAINS THE USER-SPECIFIED CARDINALTY (IF ANY) FOR THE RELATION FROM THE LISTS. VERIFIES IT AND TRANSFERS IT TO NUMERIC VARIABLES WHICH ARE RETURNED TO THE CALLING ROUTINE.

#### ARGUMENTS: \_\_\_\_\_

MO-IND-ENT = DSPLY [S9(9)]MIN-NO-DEP-ENT - DSPLY [S9(9)] MAX-NO-DEP-ENT - DSPLY [S9(9)]

RTM-STATUS = DSPLY [S9(9)]

### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST LOWUPP

- CONVERT A STRING TO UPPER CASE CHARACTERS
UWARN

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

CPFNXT

- ACCESS THE NEXT TOKEN IN A PARSER LIST.

UERROR

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

### CALLED DIRECTLY BY:

ALTREL - CONTROLS PROCESSING LOGIC FOR THE ALTER RELATION COMMAND

USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

ALTDOM

PURPOSE:

PROGRAM NAME

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

PROGRAM

SOURCE FILE:

ALTDOM

SOURCE FILE TYPE:

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

### DESCRIPTION:

THE ALTER DOMAIN COMMAND OBTAINS A DOMAIN NAME. THEN CALLS THE CLAUSE PROCESSORS TO DROP DATA TYPES ADD DATA TYPES AND ALTER DATA TYPES.

FIRST OBTAIN DOMAIN NAME AND VERIFY THAT IT DOES EXIST. USING THE DOMAIN NUMBER DROP, ADD AND ALTER DATA TYPE.

#### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

#### ROUTINES CALLED:

- EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

- VERIFY THE EXISTENCE OF A DOMAIN CLASS IN THE

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

PROCDT

- PROGRAM NAME

#### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

USED IN MAIN PROGRAM(S):

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MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

ALTDT

PURPOSE:

PROGRAM MAME

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE PILE: SUBROUTIME

SOURCE FILE TYPE:

ALTDT

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

### **DESCRIPTION:**

THIS CLAUSE WILL ALTER THE DATA TYPE GIVEN THE DOMAIN NUMBER

GIVEN THE DOMAIN NUMBER, EXTRACT THE DATA TYPE NAME, ID, TYPE-SIZE FOR A DATA TYPE. VERIFY IF IT IS STANDARD OR USER DEFINED TYPE AND THAT THE TYPE EXISTS. IF IT DOES, UPDATE THE DATA TYPE, AND FETCH THE NEXT RECORD TO BE UPDATED.

#### **ARGUMENTS:**

DOM-NO, DATA-TYPE-NAME, TYPE-ID = MAX-SIZE, NO-OF-DEC, STD-USER =

### ROUTINES CALLED:

VERDTD - VERIFY THE EXISTENCE OF A DATA TYPE IN A GIVEN DOMAIN UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

VERSDT - For a given domain number, return its standard data type name.

UPDIND - UPDATE USER\_DEF\_DATA\_TYPE SET DATA\_TYPE\_IND = :

- UPDATE USER DEF DATA TYPE SET TYPE ID = : 1 UPDTDT

CALLED DIRECTLY BY:

PROCDT - PROGRAM MANE

USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

NAME: ALTENT

PURPOSE: CONTROL PROCESSING FOR ALTER ENTITY CLASS

COMMAND.

LANGUAGE: VAX-11 COBOL

SUBROUTINE MODULE TYPE:

SOURCE FILE: ALTENT SOURCE FILE TYPE: .COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

### DESCRIPTION:

CONTROLS THE PROCESSING LOGIC FOR THE ALTER ENTITY CLASS COMMAND. THE COMMAND CONSISTS OF AN ENTITY CLASS NAME FOLLOWED BY ONE OR MORE OPTIONAL CLAUSES. THE CLAUSES ARE ADD KEY CLASS, ADD OWNED ATTRIBUTE LIST, ADD KEYWORD, DROP KEY CLASS, DROP OWNED ATTRIBUTE, AND/OR DROP KEYWORD.

AN ERROR VERIFYING ENTITY CLASS CAUSES PROCESSING TO STOP. OTHERWISE, EACH CLAUSE IS PROCESSED, REGARDLESS OF ERRORS WHICH MAY HAVE OCCURRED WHILE PROCESSING A PREVIOUS CLAUSE.

### **ARGUMENTS:**

MODEL-NO = DSPLY [S9(9)]

### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

- DETERMINE IF CURRENT MODEL EXISTS FOR A SESSION

### ROUTINES CALLED:

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIS

- EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

VERENT - VERIFY THE EXISTENCE OF AN ENTITY CLASS IN A MODEL DRPAC - DELETE OWNED ATTRIBUTES ASSOCIATED WITH ENTITY DRPKC - CONTROLS THE PROCESSING LOGIC FOR THE "DROP KEY CLASS". - ASSOCIATES EXISTING ATT WITH ENTITY IN CREAT ADDATT ENTITY COMMAND - CONTROLS PROCESS FOR KEY CLASS CLAUSE FOR ADDKC CREATE/ALTER ENTITY - DROP A KEYWORD ASSOCIATION FROM EITHER AN DRPKW ATTRIBUTE, ENTITY OR REL ADDKA - ADDS KEYWORDS FOR COMMANDS USING "ADD KEYWORD" (OPTIONAL) - DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER DELMTKC

### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

#### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: ALTHAP

ALTER MAP COMMAND PROCESSOR PURPOSE:

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT () ALTMAP SOURCE FILE: .C

SOURCE FILE TYPE:

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION: \_\_\_\_\_ SYNOPSIS

-- ALTHAP

COBOL -- CALL "ALTMAP".

FORTRAN -- CALL ALTMAP

INPUT:

**OUTPUT:** 

DESCRIPTION

ALTMAP IS THE COMMAND PROCESSOR FOR THE ALTER MAP COMMAND. IT

VALIDATES CERTAIN COMMON PARAMETERS AND THEN CALLS SUBORDINATE

ROUTINES DEPENDING ON WHETHER THE ALTER ADD, ALTER DROP, OR

ALTER ALTER FUNCTIONS ARE TO BE PERFORMED.

### INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS

LISTID - PROVIDES LIST OF PARSED OBJECTS

#### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

VERENT - VERIFY THE EXISTENCE OF AN ENTITY CLASS IN A

MODEL

SPRINTF

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

CPFWXT - ACCESS THE MEXT TOKEN IN A PARSER LIST.

STRNCHP

ALTSMAP - ALTER A SINGLE MAP

DRPSMAP - DROP A SINGLE MAPPING

ADDMAP - ADD A CS-IS MAPPING

STRUCPY

TOLOVER

VERREL - VERIFY THE DEPENDENT AND INDEPENDENT ENTITIES

IN THE RELATION

VERAUC - VERIFY THE EXISTENCE OF AN ATTRIBUTE USE CLASS

### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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MAME:

ALTMOD

PURPOSE:

CONTROLS PROCESSING FOR ALTER MODEL

COMMANDS

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

ALTHOD

SOURCE FILE TYPE:

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

THE ALTER MODEL COMMAND PROCESSOR WILL CONTROL THE PROCESSING LOGIC OF ALTERING A MODEL WITH-IN THE SYSTEM.

#### **ARGUMENTS:**

CURRENT-MODEL-NO = DSPLY [S9(9)] CUR-MOD-NAME = DSPLY [X(30)]

#### INCLUDE FILES:

UNIQUE OUNIQUE NUMBER ASSIGNMENTS FOR CDM OBJECTS

- VALID LIST NUMBERS

### ROUTINES CALLED: ------

CPFONE

- EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

VERMOD

- verify the existence of a model and return the

unique number.

UERROR

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

UPDMOD

- UPDATE MODEL CLASS SET MODEL STATUS = : 1

UWARN

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

#### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME: ALTREL

PURPOSE: CONTROLS PROCESSING LOGIC FOR THE ALTER

RELATION COMMAND

MODULE TYPE: SUBROUTINE SOURCE FILE: ALTERIA

.COB SOURCE FILE TYPE:

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** --------

CONTROLS THE PROCESSING LOGIC FOR THE ALTER

RELATION COMMAND.

**ARGUMENTS:** 

MODEL-NO = DSPLY [S9(9)]

INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

CHKMODL - DETERMINE IF CURRENT MODEL EXISTS FOR A SESSION

ROUTINES CALLED:

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST
CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.
VERREL - VERIFY THE DEPENDENT AND INDEPENDENT ENTITIES

IN THE RELATION

ALTCARD - PROCESS CARDINALITY FO USER SPECIFIED RELATION

UPDTRC - UPDATE RELATION CLASS SET NO IND ENT = : 1,

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ADDMIG - PROCESS THE ADD MIGRATES...SET..CLAUSE ADDKW - ADDS KEYWORDS FOR COMMANDS USING "ADD

KEYWORD' (OPTIONAL)

DRPMIG - CONTROLS THE PROCESSING LOGIC FOR THE "DROP

migrates" clause.

DRPKW - DROP A KEYWORD ASSOCIATION FROM EITHER AN

ATTRIBUTE, ENTITY OR REL

DELMTKC - DELETE EMPTY KEY CLASSES GIVEN THE MODEL MUMBER

### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: ALTSHAP

PURPOSE: ALTER A SINGLE MAP

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT () SOURCE FILE: ALTSHAP

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

C -- ALTSMAP (STAG\_NO, SAC\_NO)

COBOL -- CALL "ALTSMAP" USING

TAG-NO AC-NO.

FORTRAN -- CALL ALTSMAP (TAGNO, ACNO)

INPUT:

INT \*TAG\_NO
INT \*AC\_NO

**OUTPUT:** 

DESCRIPTION

ALTSMAP MODIFIES, FOR AUC TO DATA FIELD MAPS, THE PRIMARY/SECONDARY

INDICATOR FROM SECONDARY TO PRIMARY AND THE DATA TYPE NAME. FOR AUC

TO SET MAPS, ALTSMAP MODIFIES THE AUC VALUE.

**ARGUMENTS:** 

TAG NO -INT \* AC NO - INT \*

### INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS

LISTID - PROVIDES LIST OF PARSED OBJECTS

#### ROUTINES CALLED:

CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.

VERPDF - verify the existence of a project data field

occurrence.

- ACCESS A TOKEN IN A CORRESPONDING NAMED LIST CPFCOR

- RETRIEVE A DOMAIN NUMBER FOR A GIVEN DOMAIN NAME FINDDOM

- VERIFY THE EXISTENCE OF A DATA TYPE IN A GIVEN VERDTD DOMAIN

SPRINTF

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

UERROR COSOLS - ORACLE ROUTINE

ERRRPT - HANDLE ANY ERROR CODE FROM ORACLE,

COEXEC - ORACLE ROUTINE COBINDN - ORACLE ROUTINE

- DETERMINES IF AN AUC TO SET TYPE MAPPING EXISTS FNDASM

CHKAUCV - CHECK EXISTENCE OF AUC TO SET MAPPING

TOLOVER

STRNCMP

- VERIFY THE EXISTENCE OF A DATA BASE IN THE CDM VERDB

#### CALLED DIRECTLY BY:

- ALTER MAP COMMAND PROCESSOR ALTMAP

# USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME: AT

PURPOSE: CONTROLS PROCESSING TO POPULATE KEYWORD

TABLE FOR AUC KEYVO

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE

SOURCE FILE: ATTKY SOURCE FILE TYPE: .COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE CONTROLS THE PROCESSING LOGIC TO POPULATE A KEYWORD TABLE WITH ATTRIBUTE CLASS KEYWORDS OF ONE MODEL. THEN SEARCHES THIS TABLE FOR MATCHES FROM THE SECOND MODEL.

# **ARGUMENTS:**

MOD-NO1 = DSPLY [S9(9)] MOD-NO2 = DSPLY [S9(9)] MOD-NAME1 = DSPLY [X(30)] MOD-NAME2 = DSPLY [X(30)]

#### INCLUDE FILES:

KWDTBL - KEYWORD TABLE

ERRPRO - PROCESS ERROR INCLUDE FILE

#### ROUTINES CALLED:

RETACKW - POPULATES KEYWORD TABLE FOR ATTRIBUTE CLASS

KEYWORDS

RACKW2 - COMPARES ATTRIBUTE CLASS KEYWORDS

ERRPRO

# CALLED DIRECTLY BY:

CMPHOD - CONTROLS THE PROCESSING LOGIC TO COMPARE TWO MODELS.

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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### MDDL COMMAND PROCESSOR Module Documentation

MAME:

BLDATT

PURPOSE:

CREATE ATT CLASS AND ATT MAME FOR A

MODEL(CREATE/COPY ATT)

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SUBROUTINE SOURCE FILE: BLDATT COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

BLDATT CREATES AN ATTRIBUTE CLASS AND ATTRIBUTE CLASS NAME OCCURENCE FOR A MODEL. BLDATT IS USED BY BOTH THE CREATE ATTRIBUTE AND THE COPY ATTRIBUTE COMMAND PROCESSORS

#### **ARGUMENTS:**

AC-NAME = DSPLY [X(30)]MODEL-NO = DSPLY [S9(9)]DOM-NO = DSPLY [S9(9)]MEW-AC-NO = DSPLY [S9(9)]

# INCLUDE FILES:

UNIQUE UNIQUE NUMBER ASSIGNMENTS FOR CDM OBJECTS

# ROUTINES CALLED: ~~~~~~

VERATT - VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A

MODEL

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

GETNNUM -

INSAC - INSERT A RECORD INTO ATTRIBUTE CLASS

### CALLED DIRECTLY BY:

CRTATT - CONTROLS THE PROCESSING LOGIC FOR CREATING AN

ATTRIBUTE.

ICOPATT - INTERACTIVE COPY ATTRIBUTE, WITH

KEYWORDS, ALIAS, DESCRS.

# USED IN MAIN PROGRAM(S):

The second secon

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME: BLDATT1

PURPOSE: CREATES ATT CLASS AND ATT NAME FOR A

MODEL(CREATE/COPY ATT)

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUT: SOURCE FILE: BLDATT1 COB SUBROUTINE

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

# DESCRIPTION:

BLDATT CREATES AN ATTRIBUTE CLASS AND ATTRIBUTE CLASS NAME OCCURENCE FOR A MODEL. BLDATT1 IS USED BY BOTH THE CREATE ATTRIBUTE AND THE COPY ATTRIBUTE COMMAND PROCESSORS

#### **ARGUMENTS:**

AC-NAME = DSPLY [X(30)]MODEL-NO = DSPLY [S9(9)]OLD-AC-NO = DSPLY [S9(9)]DOM-NO = DSPLY [S9(9)]MEW-AC-MO = DSPLY [S9(9)]KW-FLAG = DSPLY [9] ALIAS-FLAG - DSPLY [9] DESC-FLAG - DSPLY [9]

#### INCLUDE FILES:

UNIQUE OUNIQUE NUMBER ASSIGNMENTS FOR CDM OBJECTS

#### ROUTINES CALLED:

VERATT - VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A

MODEL

UWARN - ISSUE A MESSAGE TO THE USER, CONSIDERED A

GETHNUM -

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

INSAC - INSERT A RECORD INTO ATTRIBUTE CLASS

WRTANAM - RETRIEVE AND COPY ALL THE NAMES (PRIMARY AND

ALIAS) OF AM ATTRIBU

WRTACKW - RETREIVE AND WRITE ALL THE KEYWORDS ASSOCIATD

WITH AN ATTRIBUTE C

INSACMM - INSERT A RECORD INTO ATTRIBUTE NAME
WRTDESC - SELECT A RECORD FROM DESC\_TEXT\_ENITY

# CALLED DIRECTLY BY:

------

COPYAC - CREATE AN ATTRIBUTE, ASSOCIATE WITH ENTITY, ADD
KEY CLASSES

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

BLECLST

PURPOSE:

THIS ROUTINE CREATES A ROW IN THE

UNBOUNDED EC\_LIST

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: BLECLST
SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

DATA STRUCTURE.

SYNOPSIS

C

-- BLECLST(FEC\_NO, FEC\_NAME, FSTATUS)

COBOL

-- CALL "BLECLST"

USING

EC-NO. EC-NAME,

STATUS.

FORTRAN -- CALL BLECLST(ECNO, ECNAME, STATUS)

INPUT:

INT \*EC NO ;

CHAR \*EC NAME :

INT \*STATUS :

OUTPUT:

DESCRPIPTION:

ARGUMENTS:

EC\_NO = EC\_NAME =

INT \*

CHAR \*

### INCLUDE FILES:

KEYLIST - DATA STRUCTURE FOR MDDL MODELLING COMMANDS

### ROUTINES CALLED:

ADDECMM - ADD THE EC\_WAME AND EC\_WO INTO KEYLIST

# CALLED DIRECTLY BY:

ALLENT - SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

GENERATE

DEPENT - SELECT ALL THE DEPENDANT ENTITY CLASSES

# USED IN MAIN PROGRAM(8):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

BLKCL1

PURPOSE:

STORE ALL KEY CLASS INFO FOR AN ENTITY IN

A LIST

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

BLKCL1

SOURCE FILE: SOURCE FILE TYPE:

. PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE CREATES A KEY-CLASS-LIST TABLE CONTAINING THE KEY CLASS NUMBERS. KEY CLASS NAMES, KEY CLASS MEMBER TAG NUMBER AND TAG NAMES FOR A GIVEN ENTITY.

#### **ARGUMENTS:**

MOD-NO = DSPLY [S9(9)]EC-NO = DSPLY [S9(9)]

# INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

AKCROW

- THIS ROUTINE ADDS A ROW TO THE UNBOUNDED

KEY CLASS LIST

**ERRPRO** 

#### CALLED DIRECTLY BY:

CERELS - GENERATES NDDL COMMANDS ON A FILE FOR ALL ENTITIES IN A RELATION.

CESTRUC - GENERATES MDDL COMMANDS ON A FILE FOR ALL ENTITIES FOR THE STRUCT

CMBENT - COMPOLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND.

DEPFRON - GENERATE CREATE RELATION, DESCRIBE COMMANDS IN THE TO-MODEL

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

BLKCLST

PURPOSE:

SELECT AND STORE KEY CLASS INFO FOR A

GIVEN ENTITY

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

BLKCLST

SOURCE FILE TYPE:

. PRC

**HOST:** 

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SELECTS THE KEY CLASSES AND KEY CLASS MEMBERS FOR EACH ENTITY IN THE FROM-MODEL AND CALLS A ROUTINE TO BUILD THE UNBOUNDED KEY-CLASS-LIST STRUCTURE.

#### **ARGUMENTS:**

FROM-MOD-NO = DSPLY [S9(9)]

#### INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

AKCROW - THIS ROUTINE ADDS A ROW TO THE UNBOUNDED

KEY CLASS LIST

ERRPRO

#### CALLED DIRECTLY BY:

CPYMOD - CONTROLS THE PROCESSING LOGIC FOR THE COPY

MODEL COMMAND.

MRGHOD - MERGE TWO IDEF MODELS INTO ONE

MRGMOD1 - COPY MODEL-1 INTO A NEW MODEL (MODEL-5)

# USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME: BLOOPCK

PURPOSE: CHECK FOR LOOPS FROM THE ENTITY GIVEN UP

THE HIERARCHY

LANGUAGE:

FUNCTION MODULE TYPE: FUNCTION TYPE: INT () SOURCE FILE: BLO SOURCE FILE TYPE: .C BLOOPCK

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

SYMOPSIS

C --BLOOPCK(EC NO)

COBOL

CALL "BLOOPCK" USING

EC-NO.

CALL BLOOPCK (ECNO) FORTRAN --

INPUT:

INT EC\_NO THE ENTITY CLASS FOR WHICH AN UPWARD HIERARCHY WILL

BE SEARCHED

**OUTPUT:** 

WARNING MESSAGES WILL BE ISSUED

SET TO -1 IF A LOOP IS FOUND STATUS LEFT ALONE OTHERWISE

\* DESCRIPTION

USE A SQL TREE SEARCH FOR ALL RELATIONS ABOVE THIS ENTITY, IF A LOOP

IN THE USER DATA IS ENCOUNTERED, REPORT AN ERROR TO THE USER.

**ARGUMENTS:** 

EC\_NO = INT STATUS = INT \*

### ROUTINES CALLED:

COSQL5 - ORACLE ROUTINE

ERRRPT - HANDLE ANY ERROR CODE FROM ORACLE.

COFETCH - ORACLE ROUTINE

SPRINTF

UWARN - ISSUE A MESSAGE TO THE USER, CONSIDERED A

COEXEC - ORACLE ROUTINE CODFINN - ORACLE ROUTINE COBINDN - ORACLE ROUTINE

# CALLED DIRECTLY BY:

CHKLOOP - CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: BLRCKC

PURPOSE: FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

FIND

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: BLRCKC
SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

THE KEY CLASSES FOR THE DEPENDENT ENTITY WHICH CONTAIN ATTRIBUTES INHERITED VIA THE RELATION AND CALL COBOL ROUTINES

TO POPULATE THE RC DEPKC LIST.

SYNOPSIS

C -- BLRCKC(SMODEL NO, SMODEL NAME,

RC DEPKC LIST)

COBOL -- CALL "BLRCKC" USING

MODEL-NO, MODEL-NAME.

FORTRAN -- CALL BLRCKC(MODELNO, MODELNAME, RCDEPKC)

INPUT:

INT \*MODEL\_NO;
CHAR \*MODEL\_NAME;
INT \*RC DEPKC LIST;

**DESCRPIPTION:** 

ARGUMENTS:

MODEL NO = INT \*

MODEL\_NAME = CHAR \*
RC DEPKC LIST = INT RC\_DEPKC\_LIST = INT RET\_STATUS = INT \* IMT \*

# ROUTINES CALLED:

INITEDL - INITIALISE THE TABLE WHICH STORES A MODELS RELATIONS

COSQL3 - ORACLE ROUTINE ERRRPT - HANDLE ANY ERROR CODE FROM ORACLE>

COFETCH ADDRCEC - ORACLE ROUTINE

- POPULATES THE RC-DEPKC TABLE FOR ALL RELATIONS

IN THE MODEL

COEXEC - ORACLE ROUTINE COBINDN - ORACLE ROUTINE CODFINN - ORACLE ROUTINE

### CALLED DIRECTLY BY:

ALLREL - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

GENERATE

MRGMOD2 - CONTROL THE LOGIC FOR PROCESSING THE REMAINING

MODEL 2

#### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

BLRCKC1

PURPOSE:

FOR EACH LEVEL OF RELATIONS IN STRUCTURE

LANGUAGE:

MODULE TYPE: FUNCTION TYPE: FUNCTION INT ()

SOURCE FILE: SOURCE FILE TYPE:

BLRCKC1 .C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

FIND THE KEY CLASSES FOR FIND THE DEPENDENT

ENTITY

WHICH CONTAIN ATTRIBUTES INHERITED VIA THE RELATION AND CALL COBOL ROUTINES

TO POPULATE THE RC DEPKC LIST.

SYNOPSIS

-- BLRCKC1 (EC NO, SMODEL NO, SMODEL NAME,

RC\_DEPKC LIST)

COBOL -- CALL "BLRCKC1" USING

EC-NO

MODEL-NO. MODEL-NAME. RC-DEPKC-LIST.

-- CALL BLRCKC1(EC-NO, MODELNO,

MODELNAME, RCDEPKC)

INPUT:

INT \*MODEL NO ;

CHAR \*MODEL NAME ;

INT \*RC DEPKC LIST ;

DESCRPIPTION:

#### **ARGUMENTS:**

INT \* EC NO = INT \* MODEL\_NAME = CHAR \*

RC DEPKC LIST -INT \*

#### ROUTINES CALLED: -----

INITEDL - INITIALISE THE TABLE WHICH STORES A MODELS

RELATIONS

COSQL3 - ORACLE ROUTINE ERRRPT - HANDLE ANY ERRO - HANDLE ANY ERROR CODE FROM ORACLE

COFETCH - ORACLE ROUTINE ADDRCEC - POPULATES THE RC-DEPKC TABLE FOR ALL RELATIONS

IN THE MODEL

COEXEC - ORACLE ROUTINE COBINDN - ORACLE ROUTINE CODFINN - ORACLE ROUTINE

#### CALLED DIRECTLY BY:

DEPREL - FOR EACH LEVEL OF RELATIONS IN STRUCTURE **GENERATE** 

### USED IN MAIN PROGRAM(S): ------

MDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME: BLSECRC

PURPOSE: CONTROLS PROCESS TO BUILD SEC-RC

COMPONENTS

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBRO SOURCE FILE: BLSEO SOURCE FILE TYPE: .COB SUBROUTINE

BLSECRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

### DESCRIPTION:

THIS ROUTINE CONTROLS THE PROCESSING LOGIC TO BUILD THE SEC-RC- COMPONENTS. IT IS CALLED FROM REMVIEW, WHICH IS TRYING TO CREATE A VIEW.

FOR EVERY ENTRY IN THERC LIST, CREATE AN OCCURRENCE OF SEC-RC ENTRY.

# **ARGUMENTS:**

VIEW-RELATION-CLASS-LIST - RECRD

VIEW-NO = DSPLY [S9(9)]

RETURN-STATUS - DSPLY [S9(9)]

#### INCLUDE FILES:

- LIST OF RELATION CLASSES INHERENT TO A VIEW VWRC

### ROUTINES CALLED: \_\_\_\_\_

INSSECR - INSERT A RECORD INTO SEC RC COMPONENT

UERROR

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

#### CALLED DIRECTLY BY:

REMVIEW - POPULATE VIEW DEFINITION AND ES-CS-MAPPING

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

BLVVLST

PURPOSE:

CREATE BUILD VIEW LISTS FOR THE CREATE

VIEW COMMAND

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

BLVVLST

SOURCE FILE TYPE:

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

BLVWLST EXTRACTS THE INPUT FOR THE CREATE VIEW COMMAND FROM THE PARSER LISTS AND STORES IT IN THE VIEW-FROM-LIST, THE VIEW-DATA-ITEM-LIST, THE VIEW-RETRIEVE-LIST AND THE VIEW-RELATION-CLASS-LIST. TABLE OVERFLOW CHECKING PERFORMED.

#### **ARGUMENTS:**

VIEW-FROM-LIST = RECRD

VIEW-DATA-ITEM-LIST = RECRD

VIEW-RETRIEVE-LIST = RECRD

VIEW-RELATION-CLASS-LIST = RECRD

RTN-STATUS = DSPLY [S9(9)]

#### INCLUDE FILES: -----------

LISTNOS - VALID LIST NUMBERS

VWFROM

- LIST OF ENTITIES SPECIFIED IN A VIEW

VWDI

- LIST OF DATA ITEMS IN A VIEW

**VWRETR** 

- LIST OF ENTITIES AND TAGS SPECIFIED IN A VIEW

- LIST OF RELATION CLASSES INHERENT TO A VIEW

### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST
UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A
CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.
- ACCESS A TOKEN IN A CORRESPONDING NAMED LIST

# CALLED DIRECTLY BY:

CRTVIEW - CONTROLS THE PROCESSING LOGIC FOR THE CREATE VIEW COMMAND.

# USED IN MAIN PROGRAM(S):

NDDL/HAIN - HAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

BRANCHR

PURPOSE:

PERFORMS MULTI-WAY CALL TO THE

LANGUAGE:

MODULE TYPE: FUNCTION TYPE: PUNCTION INT ()

SOURCE FILE: SOURCE FILE TYPE: BRANCHR .C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

INDIVIDUAL COMMAND PROCESSOR.

SYMOPSIS

BRANCHR(COMMAND NO);

COBOL

-- CALL "BRANCHR"

USING

COMMAND NO.

**FORTRAN** 

CALL BRANCHR(CMDNO)

INPUT:

COMMAND NO

AN INTEGER VARIABLE, A VALUE INDICATING WHICH COMMAND IS TO BE EXECUTED, FOR VALUE ASSIGNMENTS SEE THE FILE "CMDS.H"

**OUTPUT:** 

DESCRIPTION

SIMPLY PERFORM A SWITCH ON COMMAND NO. AT EAC CASE CALL THE APPROPRIATE COMMAND PROCESSOR.

### PLEASE KEEP THE CASES IN ALPHABETICAL ORDER!

## **ARGUMENTS:**

COMMAND\_NO = INT

# INCLUDE FILES:

CMDS - COMMAND NO. FOR EACH MDDL/NDML COMMAND - \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

## ROUTINES CALLED:

ERRPRO	
UERROR	- ISSUE A MESSAGE TO THE USER, CONSIDERED A
ALTALI	
	OR VICE VERSA)
ALTATT	- THE ALTER ATTRIBUTE COMMAND PROCESSOR ALTERS
PRINTF	
ALTDOM	- PROGRAM NAME
ALTENT	- CONTROL PROCESSING FOR ALTER ENTITY CLASS
	COMMAND.
ALTMAP	
ALTMOD	- CONTROLS PROCESSING FOR ALTER MODEL COMMANDS
ALTREL	- CONTROLS PROCESSING LOGIC FOR THE ALTER
	RELATION COMMAND
CHKMOD	- DETERMINES WHETHER CERTAIN RULES ARE FULFILLED,
CMBENT	- CONROLS THE PROCESSING LOGIC FOR THE COMBINE
	ENTITY COMMAND.
<b>CMPMOD</b>	- CONTROLS THE PROCESSING LOGIC TO COMPARE TWO
	MODELS.
COPATT	- CONTROLS THE PROCESSING LOGIC FOR COPYING AN
	ATTRIBUTE.
<b>CPYDES</b>	- COMMAND PROCESSOR FOR COPY DESCRIPTION
COPENT	- CONTROLS THE PROCESSING LOGIC FOR THE COPY
	ENTITY COMMAND.
CPYMOD	- CONTROLS THE PROCESSING LOGIC FOR THE COPY
	MODEL COMMAND.
CRTATT	- CONTROLS THE PROCESSING LOGIC FOR CREATING AN
	ATTRIBUTE.
CRTALI	- CREATES ALIASES FOR AN ENTITY OR ATTRIBUTE.
CRTDOM	- PROGRAM NAME CRTDOM
CRTENT	- CONTROL THE PROCESSING LOGIC FOR CREATING A NEW
	ENTITY CLASS.
CRTMAP	- CREATE MAP COMMAND PROCESSOR

CRTMOD	- CONTROL THE PROCESSING LOGIC IF CREATING A MODEL WITHIN THE SYSTE
CRTREL	- CONTROLS THE LOGIC FOR VALIDATING AND CREATING A NEW RELATION CLA
CRTVIEW	- CONTROLS THE PROCESSING LOGIC FOR THE CREATE VIEW COMMAND.
DEFDB	- CONTROLS THE PROCESSING LOGIC FOR DEFINING A DATABASE TO THE SYST
DEFREC	- CONTROLS THE PROCESSING LOGIC FOR DEFINING A RECORD FOR THE SYSTE
DEFSET	- CONTROLS THE PROCESSING LOGIC FOR THE DEFINE SET COMMAND.
DRPDB	- CONTROLS THE PROCESSING LOGIC FOR DELETING THE DATA BASE.
DRPFLD	- CONTROLS THE PROCESSING LOGIC FOR DROPPING A DATA FIELD.
DRPREC	- CONTROLS THE PROCESSING LOGIC FOR THE DROP RECORD COMMAND.
DRPSET	- CONTROLS THE PROCESSING LOGIC FOR DELETING A SET FROM THE DATABAS
DESCRB	- COMMAND PROCESSOR FOR THE NDDL DESCRIBE COMMAND
DRPATT	
	- CONTROLS THE DROPPING OF USER SPECIFIED ATTRIBUTE CLASSES FROM TH
DRPDOM	- PROGRAM NAME
DRPALI	- DROP THE ALIAS FOR AN ENTITY OR ATTRIBUTE.
DRPVIEW	- DROP THE VIEW.
DRPKWC	- OBTAIN THE USED IDENTIFIED KEYWORD, THEN DROP THEIR ASSOCIATIONS.
DRPMAP	- COMMAND PROCESSOR FOR THE DROP MAP COMMAND
DRPENT	- CONTROL THE PROCESSING LOGIC FOR DELETING
	ENTITIES.
DRPMOD	- CONTROLS THE PROCESSING LOGIC TO DROP A MODEL.
DRPREL	- CONTROLS THE PROCESSING LOGIC FOR THE "DROP
	RELATION" COMMAND.
MRGMOD	- MERGE TWO IDEF MODELS INTO ONE
RENAME	- UPDATE EXISTING OBJECT NAME WITH NEW OBJECT NAME
HALT	- HALT WITH 'COMMIT' OR 'ROLLBACK'.

### CALLED DIRECTLY BY:

PRCCMD - THIS ROUTINE IS CALLED TO HANDLE ALL

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

CDP4A

PURPOSE:

VERIFY SURROGATE ENTITY CLASS STRUCTURE

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTIME

SOURCE FILE:

CDP4A

SOURCE FILE TYPE:

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION: ------

- THIS ROUTINE VILL PERFORM THE NECESSARY LGORITHM TO VERIFY A LEGAL SURROGATE ENTITY CLASS STRUCTURE:
- 1. ALL ENTITY CLASSES CONNECTED BY 1-1 SETS HUST RE A REGULAR HIERARCHY
- 2. EACH GROUPING OF 1-1 STRUCTURES CAN BE SUBSTITUTED AS A SINGLE NODE
- 5. THE RESULTING STRUCTURE OF ALL 1-MANY RELATIONSHIPS MUST FORM A COMPLUENT HIERARCHY

ALL IMPUT TO THIS ROUTINE VILL BE SET UP IN THE SEC-DECOMP-LIST WHICH CONTAINS ALL ENTITY CLASSES THAT ARE RELATED AND THE TYPE OF RELATIONSHIP.

USING A POPULATED SEC-DECOMP-LIST. THIS ROUTINE WILL VALIDATE A VALID SURROGATE ENTITY CLASS. I.E. A REGULAR-CONFLUENT HIERARCHY

#### **ARGUMENTS:**

SEC-DECOMP-LIST = RECRD RET-STATUS - DSPLY [X(5)]

#### INCLUDE FILES:

SDLIST - SEC-DECOMPOSITION-LIST ERRPRO - PROCESS ERROR INCLUDE FILE

ROUTINES CALLED:

ERRPRO

CALLED DIRECTLY BY:

VERRELS - VERIFY THE RELATION CLASS STRUCTURE

USED IN MAIN PROGRAM(S):

WDDL/MAIN - MAIN PROGRAM FOR THE WDDL COMMAND PROCESSOR

### MDDL COMMAND PROCESSOR Module Documentation

MAME:

CERELS

PURPOSE:

GENERATES MODL COMMANDS ON A FILE FOR ALL

ENTITIES IN A REL

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

CERELS

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE GENERATES MDDL COMMANDS ON A FILE FOR ALL ENTITIES IN A RELATION.

#### **ARGUMENTS:**

FROM-MODEL-NO = DSPLY [S9(9)]CUR-MODEL-NO - DSPLY [S9(9)] CUR-MODEL-MAME = DSPLY [X(50)] FROM-EC-NO = DSPLY [S9(9)]TO-EC-NO = DSPLY [S9(9)]FROM-EC-NAME = DSPLY [X(30)]TO-EC-MAME = DSPLY [X(50)]KW-FLAG = DSPLY [9] ALIAS-FLAG - DSPLY [9] DESC-FLAG = DSPLY [9] FILE-NAME = DSPLY [X(30)]

#### INCLUDE FILES:

RELTBL - LIST OF RELATION CLASSES IN A MODEL

- PROCESS ERROR INCLUDE FILE

#### ROUTINES CALLED:

_	_	 _	_	_
_		 •	•	т .

ADDPARM - WRITES 80 CHAR MDDL COMMAND WITH PARAMENTERS

CHECKS/DELIMITER

GENENT1 - GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND

DESCRS.

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

BLECL1 - STORE ALL KEY CLASS INFO FOR AN ENTITY IN A LIST

DEPFRON - GENERATE CREATE RELATION, DESCRIBE COMMANDS IN

THE TO-MODEL

GENALTE - GENERATE AN ALTER ENTITY .. ADD KEY CLASS COMMAND

INDFROM - RETRIEVES RELATIONS, DETERMINES IND EC AND

GENERATES NDDL

CLSFIL - THIS ROUTINE CLOSES AN OUTPUT FILE. THE FILE

AILL

**ERRPRO** 

### CALLED DIRECTLY BY:

FCOPENT - DETERMINE IF COPY ENTITY WITH STRUCTURE OR RELATION

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CESTRUC

PURPOSE:

GENERATES NDDL COMMANDS ON A FILE FOR ALL

ENTITIES FOR THE

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

CESTRUC

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

THIS ROUTINE GENERATES NDDL COMMANDS ON A FILE FOR ALL ENTITIES FOR THE STRUCTURE.

# **ARGUMENTS:**

FROM-MODEL-NO = DSPLY [S9(9)]FROM-MODEL-NAME - DSPLY [X(30)] FROM-EC-NO = DSPLY [S9(9)]TO-EC-NAME = DSPLY [X(30)]KW-FLAG = DSPLY [9] ALIAS-FLAG = DSPLY [9]

DESC-FLAG - DSPLY [9]

FILE-NAME = DSPLY [X(30)]

CUR-MODEL-NAME = DSPLY [X(30)]

### INCLUDE FILES:

RCDEPKC - LIST OF KEYS MIGRATED VIA A RELATION ERRPRO - PROCESS ERROR INCLUDE FILE

# ROUTINES CALLED:

OPNFIL	
ADDPARM	- WRITES 80 CHAR MDDL COMMAND WITH PARAMENTERS CHECKS/DELIMITER
GENERT1	- GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.
BLKCL1	- STORE ALL KEY CLASS INFO FOR AN ENTITY IN A LIST
GENALTE	- GENERATE AN ALTER ENTITY ADD KEY CLASS COMMAND
DEPATT	- SELECT ALL THE ATTRIBUTES IN THE
DEPENT	- SELECT ALL THE DEPENDANT ENTITY CLASSES
DPKCLST	- CREATE AN KEY CLASS_LIST TABLE CONTAINING ALL THE ENTITY
DEPREL	- FOR EACH LEVEL OF RELATIONS IN STRUCTURE GENERATE
CLSFIL	- THIS ROUTINE CLOSES AN OUTPUT FILE. THE FILE WILL
ERRPRO	·· <del></del>

# CALLED DIRECTLY BY:

FCOPENT - DETERMINE IF COPY ENTITY WITH STRUCTURE OR RELATION

# USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

NAME:

**CHGDOM** 

PURPOSE:

CHANGE THE DOMAIN FOR AN ALTERED ATTRIBUTE

LANGUAGE:

C

MODULE TYPE: FUNCTION TYPE: FUNCTION INT ()

SOURCE FILE:

CHGDOM

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

CLASS.

SYNOPSIS

-- CHGDOM(FAC NO, FSTATUS)

COBOL

-- CALL "CHGDOM"

USING

AC-NO STATUS.

FORTRAN -- CALL CHGDOM (ACNO, STATUS)

INPUT:

INT \*AC NO

**OUTPUT:** 

INT \*STATUS

DESCRIPTION

CHGDOM ALLOWS AN ATTRIBUTE CLASS TO CHANGE FROM ONE DOMAIN TO ANOTHER. THE VALUE OF THE FUNCTION IS ZERO IF SUCCESSFUL AND -1 OTHERWISE.

ARGUMENTS:

AC\_NO = INT \*
STATUS = INT \*

### INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS
LISTID - PROVIDES LIST OF PARSED OBJECTS
UNIQUE OUNDER ASSIGNMENTS FOR CDM OBJECTS

#### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST VERDOM - VERIFY THE EXISTENCE OF A DOMAIN CLASS IN THE

CDM

SPRINTF

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A
UPDAC - UPDATE ATTRIBUTE\_CLASS SET DOMAIN\_NO = : 1

#### CALLED DIRECTLY BY:

ALTATT - THE ALTER ATTRIBUTE COMMAND PROCESSOR ALTERS

### USED IN MAIN PROGRAM(S): \_\_\_\_\_

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: CHGLOBL

PURPOSE: CHANGES THE GLOBAL DB PARAMETERS

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: CHGLOBL

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

SYNOPSIS

C CHGLOBL(DB\_ID, DB\_NAME, HOST\_NAME, DBMS\_NAME)

COBOL -- CALL "CHGLOBL" USING

DB ID,

DB\_NAME, HOST\_NAME, DBMS\_NAME.

FORTRAN -- CALL CHGLOBL (DB\_ID, DB\_NAME, HOST\_NAME, DBMS\_NAME)

INPUT:

**OUTPUT:** 

DB\_ID,

DB\_NAME, HOST\_NAME, DBMS\_NAME.

DESCRIPTION

THIS ROUTINE WILL CHANGE THE FOLLOWING 4 GLOBAL VARIABLE 1. CUR\_DBID (CURRENT DATABASE ID)

## PS 620141100 1 November 1985

2. CUR DBNAME

(CURRENT DATABASE NAME)

3. CUR HOST (CURRENT HOST NAME )

4. CUR DBMS (CURRENT DATABASE MANAGEMENT)

## ARGUMENTS:

DB\_ID = INT \*
DB\_NAME = CHAR \*
HOST\_NAME = CHAR \*
DBMS\_NAME = CHAR \*

### CALLED DIRECTLY BY:

- CONTROLS THE PROCESSING LOGIC FOR DEFINING A DEFDB

DATABASE TO THE SYST

GETDBST - RETURN INFORMATION ABOUT THE CURRENT SESSIONS'

DATABASE

GETRDH - RETURN WITH CURRENT SESSIONS' DATA BASE INFO

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CHKATT

PURPOSE:

CHECK IF ATTRIBUTES HAVE BEEN CREATED

ACCORDING TO STANDARD

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

CHKATT

SOURCE FILE TYPE:

. PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE CHECKS TO SEE IF THE POLLOWING RULES ARE FULFILLED:

- 1) EACH ENTITY MUST HAVE AT LEAST ONE ATTRIBUTE USE CLASS
- 2) EACH ATTRIBUTE CLASS MUST HAVE A DOMAIN AND THAT DOMAIN MUST HAVE A STANDARD DATA TYPE.

# **ARGUMENTS:**

EC-NO = DSPLY [S9(9)]

EC-NAME = DSPLY [X(30)]

NDDL-STATUS - DSPLY [S9(9)]

## INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR

ERRPRO - PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

UWARN - ISSUE A MESSAGE TO THE USER, CONSIDERED A

ERRPRO

# CALLED DIRECTLY BY:

GETECS - USING ENTITY CLASS VERIFIES CHECK MODEL RULES

# USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

CHKAUCV

PURPOSE:

CHECK EXISTENCE OF AUC TO SET MAPPING

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

CHKAUCV

SOURCE FILE TYPE:

. PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

# DESCRIPTION:

CHKAUCV SEARCHES ALL AUC TO SET MAPPINGS FOR A PARTICULAR AUC TO DETERMINE WHETHER AN AUC VALUE HAS BEEN USED MORE THAN ONCE FOR A SINGLE AUC. IF SO, THE FOUND FLAG IS SET TO ONE, OTHERWISE ZERO.

AN NDML SELECT STATEMENT IS EXECUTED TO OBTAIN ALL OCCURENCES OF AUC ST MAPPING WHOSE DB ID, TAG NO, AND AUC VALUE MATCH. IF ANY ARE FOUND, FOUND IS SET TO ONE, OTHERWISE ZERO.

## **ARGUMENTS:**

DB-NO = DSPLY [S9(9)]
TAG-NO = DSPLY [S9(9)]
AUC-VALUE = DSPLY [X(30)]
FOUND = DSPLY [S9(9)]

## INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

ERRPRO

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CALLED DIRECTLY BY:

ALTSMAP - ALTER A SINGLE MAP

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CHKCARD

PURPOSE:

OBTAINS THE USER-SPECIFIED CARDINALTY (IF

ANY) FOR THE RELA

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

CHKCARD

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### DESCRIPTION:

CHKCARD OBTAINS THE USER-SPECIFIED CARDINALTY (IF ANY) FOR THE RELATION FROM THE LISTS, VERIFIES IT AND TRANSFERS IT TO NUMERIC VARIABLES WHICH ARE RETURNED TO THE CALLING ROUTINE. IF A CARDINALITY IS OMITTED BY THE USER, IT IS ASSIGNED A DEFAULT VALUE.

#### **ARGUMENTS:**

NO-IND-ENT = DSPLY [S9(9)]

MIN-NO-DEP-ENT - DSPLY [S9(9)]

MAX-NO-DEP-ENT = DSPLY [S9(9)]

RTN-STATUS = DSPLY [S9(9)]

### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

#### ROUTINES CALLED:

- EXTRACT THE FIRST TOKEN FROM THE NAMED LIST CPFONE

LOWUPP

- CONVERT A STRING TO UPPER CASE CHARACTERS
- ISSUE A MESSAGE TO THE USER, CONSIDERED A UWARN

CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.

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UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

CALLED DIRECTLY BY:

CRTREL - CONTROLS THE LOGIC FOR VALIDATING AND CREATING A NEW RELATION CLA

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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NAME:

CHICDOMS

PURPOSE:

VERIFY THAT THE DATA ITEM AND ATTRIBUTE

USE CLASS.

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

CHKDOMS

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

#### **DESCRIPTION:**

CHKDOM WILL VERIFY THAT THE DATA ITEM AND ATTRIBUTE USE CLASS REFERENCED IN THE VIEW COMMAND ARE FROM THE SAME DOMAIN CLASS.

#### **ARGUMENTS:**

VIEW-NO = DSPLY [S9(9)]EC-NO = DSPLY [S9(9)]TAG-NAME = DSPLY [X(30)]DI-NAME = DSPLY [X(30)]

DATA-TYPE-NAME = DSPLY [X(30)]RETURN-STATUS - DSPLY [S9(9)]

### ROUTINES CALLED:

GETDOM - RETRIEVES DOMAIN NUMBER BASED ON TAG NAME FOR

AUC

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

VERDTD - VERIFY THE EXISTENCE OF A DATA TYPE IN A GIVEN

DOMAIN

INSDI - INSERT A RECORD INTO DATA ITEM

- INSERT A RECORD INTO PROJECT DATA ITEM INSPDI

VERSDT - For a given domain number, return its standard data type name.

## CALLED DIRECTLY BY:

P1FROM - CREATE A VIEW USING A SINGLE ENTITY CLASS(

ES-CS-MAPPING)

PROFROM - PROCESS A VIEW COMMAND FOR MULTIPLE ENTITY

CLASSES

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

CHKINH NAME:

PURPOSE: checks the RC-DEPKC table and determines

when a key class c

LANGUAGE: VAX-11 COBOL MODULE TYPE: SOURCE FILE: SUBROUTINE

CHKINH SOURCE FILE TYPE: . COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION: \_\_\_\_\_

> CHKINH checks the RC-DEPKC table and determines when a key class can be added to a dep-ec. If a key class for a given rc-no and dep-ec-no does not appear further down in the RC-DEPKC table then the key class(es) can be added to the dep-ec-no.

# **ARGUMENTS:**

RC-NO = DSPLY [S9(9)]DEP-EC-NO = DSPLY [S9(9)]RC-DEPKC-LIST = RECRD KC-LIST - RECRD

## INCLUDE FILES:

RCDEPKC - LIST OF KEYS MIGRATED VIA A RELATION

KEYLIST - DATA STRUCTURE FOR NDDL MODELLING COMMANDS

## CALLED DIRECTLY BY:

ALLKEY - GENERATES KEY CLASS FOR AN ENTITY

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CHKKEYS

PURPOSE:

CHECKS TO SEE IF A KEY CLASS FULFILLED

RULES.

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE: SOURCE FILE TYPE: CHKKEYS

HOST:

SUBSYSTEM:

CDM

.COB

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE CHECKS TO SEE IF THE FOLLOWING RULES ARE FULFILLED:

- 1) A KEY CLASS MUST BE DEFINED FOR EACH ENTITY CLASS
- 2) MULTIPLE KEY CLASSES OF AN ENTITY CLASS MUST NOT BE SUBSETS OF ONE ANOTHER.

#### **ARGUMENTS:**

ORACLE-LDA = RECRD

EC-NO = DSPLY [S9(9)]

EC-NAME = DSPLY [X(30)]

RETURN-STATUS - DSPLY [S9(9)]

## INCLUDE FILES:

ORCLEDA - WS DEFINITION FOR THE ORACLE LOGIN AREA

ERRPRO - PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

------

OOPEN

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

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OSGF2

ODFINN

OBINDN

OEXEC

OFETCH UWARN

- ISSUE A MESSAGE TO THE USER, CONSIDERED A

ERRPRO

CALLED DIRECTLY BY:

GETECS - USING ENTITY CLASS VERIFIES CHECK MODEL RULES

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CHKLOOP

**PURPOSE:** 

CHECK LOOP DEPENDENCY AND FOR TOPS AND

BOTTOMS

LANGUAGE:

C

MODULE TYPE: FUNCTION TYPE: FUNCTION INT ()

SOURCE FILE:

CHKLOOP

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

\_\_\_\_\_ SYNOPSIS

C -- CHKLOOP(MODEL NAME, ESTATUS)

COBOL

"CHKLOOP"

-- CALL

USING

MODEL-NAME

STATUS.

FORTRAN --

CALL CHKLOOP(MODELNAME, STATUS).

INPUT:

CHAR \*MODEL NAME ;

OUTPUT:

INT \*STATUS:

DESCRIPTION

THIS ROUTINE CHECKS FOR LOOP DEPENDANCY. IF A LOOP EXISTS THE MODEL CANNOT BE "CHECKED". THE CHECK CONSISTS OF LOOKING FOR ALL TOP NODES IN THE MODEL, THOSE ENTITIES WHICH ARE DEPENDENT ON NO OTHERS, EVERY MODEL SHOULD HAVE AT LEAST ONE. THEN FOR EACH TOP CALL TLOOPCK

TO CHECK FOR ANY LOOPS IN THE HIERARCHY STARTING AT THAT TOP. NEXT LOOK FOR ALL BOTTOM ENTITIES, EACH MODEL SHOULD HAVE AT LEAST ONE BOTTOM. FOR EACH BOTTOM CALL BLOOPCK TO CHECK FOR ANY LOOPS IN THE HIERARCHY ENDING AT THAT BOTTOM.

#### **ARGUMENTS:**

MODEL NAME = CHAR \*

 $STATU\overline{S} = INT *$ 

## INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS

## ROUTINES CALLED:

COSQL3 ERRRPT

- ORACLE ROUTINE
- HANDLE ANY ERROR CODE FROM ORACLE>

SPRINTF

UWARN - ISSUE A MESSAGE TO THE USER, CONSIDERED A

COFETCH - ORACLE ROUTINE BLOOPCK - CHECK FOR LOOPS FROM THE ENTITY GIVEN UP THE

HIERARCHY

TLOOPCK - CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE

HIERARCHY

COEXEC - ORACLE ROUTINE CODFINN - ORACLE ROUTINE COBINDN - ORACLE ROUTINE

### CALLED DIRECTLY BY:

- DETERMINES WHETHER CERTAIN RULES ARE FULFILLED. CHKMOD

## USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

CHKMOD

PURPOSE:

DETERMINES WHETHER CERTAIN RULES ARE

PULFILLED.

LANGUAGE:

VAX-11 COBOL SUBROUTINE

MODULE TYPE: SOURCE FILE:

CHKMOD

SOURCE FILE TYPE:

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

LAIS ROUTINE DETERMINES WHETHER CERTAIN RULES ARE FULFILLED. AND IF THEY ARE, THE IDEF MODEL IS MARKED AS "CHECKED".

AFTER EXTRACTING THE MODEL MAME FROM THE PARSER LISTS. VERIFY THAT THE MODEL EXISTS. THEN CHECK THAT THE RULES ARE OBSERVED. AND IF THEY ARE. UPDATE THE MODEL AS "CHECKED".

#### **ARGUMENTS:**

ORACLE-LDA - RECRD

### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS
ORCLEDA - WS DEFINITION FOR THE ORACLE LOGIN AREA

ERRPRO

- PROCESS ERROR INCLUDE FILE

# ROUTINES CALLED:

CPFONE

- EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

VERMOD

- verify the existence of a model and return the unique number.

# PS 620141100 1 November 1985

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UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A
- USING ENTITY CLASS VERIFIES CHECK MODEL RULES
- CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS
UPDMOD - UPDATE MODEL CLASS SET MODEL STATUS = : 1
- ISSUE A MESSAGE TO THE USER, CONSIDERED A
ERRPRO

## CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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## NDDL COMMAND PROCESSOR Module Documentation

NAME:

**CHKOWN** 

PURPOSE:

checks each of the OWN-ec's key classes

against the RC-DEPK

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE: SOURCE FILE TYPE: . COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

CHKOWN checks each of the OWN-ec's key classes against the RC-DEPKC\_LIST. If the key class does not appear anywhere in the table, then the key class is owned by the dep-ec and can be added at this point.

#### **ARGUMENTS:**

DEP-EC-NO = DSPLY [S9(9)]

RC-DEPKC-LIST = RECRD

EC-LIST = RECRD

KC-LIST = RECRD

RTN-STATUS = DSPLY [S9(9)]

### INCLUDE FILES:

RCDEPKC - LIST OF KEYS MIGRATED VIA A RELATION

ECLIST - CONTAINS A LIST OF ENTITY CLASS NUMBERS

KEYLIST - DATA STRUCTURE FOR NDDL MODELLING COMMANDS

## ROUTINES CALLED:

NEXTKC - THIS ROUTINE RETURNS A KC NAME FOR A GIVEN

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UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

CALLED DIRECTLY BY:

ALLKEY - GENERATES KEY CLASS FOR AN ENTITY

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CHKREL

PURPOSE:

CHECK IF RELATIONS HAVE BEEN CREATED

ACCORDING TO STANDARDS

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

CHKREL

SOURCE FILE TYPE:

. PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE CHECKS TO SEE IF THE FOLLOWING RULES ARE FULFILLED:

- 1) NO NON-SPECIFIC RULES
- 2) NO INCOMPLETE RELATION CLASSES
- 3) NO ONE-TO-ONE RELATIONSHIPS.

#### **ARGUMENTS:**

EC-NO = DSPLY [S9(9)]

EC-NAME = DSPLY [X(30)]

NDDL-STATUS = DSPLY [S9(9)]

## INCLUDE FILES:

SRVRET

- AS THE RETURN GIVEN A TABLE-FULL ERROR

- PROCESS ERROR INCLUDE FILE

## ROUTINES CALLED:

RETRECP - RETIEVE AN ENTITY CLASS NAME FOR A GIVEN NO.

AND NAME TYPE

UWARN - ISSUE A MESSAGE TO THE USER, CONSIDERED A

VERRCC - verify if the relation class is complete. ERRPRO

## CALLED DIRECTLY BY:

GETECS - USING ENTITY CLASS VERIFIES CHECK MODEL RULES

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: CKDUPEC

PURPOSE: POPULATES A TABLE WITH ENTITY NAMES.

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE SOURCE FILE: CKDUPEC

SOURCE FILE TYPE: .COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

# DESCRIPTION:

THIS ROUTINE IS CALLED FROM MRGMOD2 WHICH IN TURN IS CALLED BY MRGMOD (MERGE MODEL) IT POPULATES A TABLE WITH ENTITY NAMES AFTER VERIFYING THAT THE ENTITY IS NOT ALREADY PRESENT.

#### **ARGUMENTS:**

DEP-EC-NO = DSPLY [S9(9)]

EC-LIST = RECRD

FOUND-FLAG - DSPLY [S9(9)]

## INCLUDE FILES:

ECLIST - CONTAINS A LIST OF ENTITY CLASS NUMBERS

## CALLED DIRECTLY BY:

MRGMOD2 - CONTROL THE LOGIC FOR PROCESSING THE REMAINING MODEL 2

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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### NDDL COMMAND PROCESSOR Module Documentation

NAME:

CKRNLST

PURPOSE:

SEARCHES THE TABLE OF RENAME PAIR LOOKING

and the first of the section of the problem of the section of the section of the section of the section of the

FOR AN OLD-TAG EN

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE: SUBROUTINE

CKRNLST

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

## DESCRIPTION:

CKRNLST SEARCHES THE TABLE OF RENAME PAIRS LOOKING FOR AN OLD-TAG ENTRY WHICH MATCHES THE TAG-NAME FROM CURRENT KEY MEMBER OCCURRENCE. IF A MATCH IS FOUND, THE RENAME-TAG ENTRY IS MOVED TO NEW-TAG-NAME. IF A MATCH IS NOT FOUND, NEW-TAG-NAME RETAINS ITS DEFAULT VALUE. WHICH IS THE TAG-NAME OF CURRENT KEY MEMBER.

## **ARGUMENTS:**

REN-LIST - RECRD

TAG-NAME = DSPLY [X(30)]

NEW-TAG-NAME - DSPLY [X(30)]

## INCLUDE FILES:

RENLIST - LIST OF ATTRIBUTES AND INHERITED TAG PAIRS

### CALLED DIRECTLY BY:

ADDMIG - PROCESS THE ADD MIGRATES...SET..CLAUSE

## USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

NAME: CLSFIL

PURPOSE: THIS ROUTINE CLOSES AN OUTPUT FILE. THE

FILE WILL

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: CLSFIL

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

CONTAINS THE USER'S NDDL.

SYNOPSIS

C -- CLSFIL(#FILE\_NAME, #READ WRITE, #STATUS)

COBOL -- CALL "CLSFIL" USING

FILE-NAME, READ-WRITE, STATUS.

FORTRAN -- CALL CLSFIL(FILENAME, READWRITE, STATUS)

INPUT:

**OUTPUT:** 

**DESCRPIPTION:** 

INCLUDE FILES:

STDIO - \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

ROUTINES CALLED:

**PCLOSE** 

# CALLED DIRECTLY BY:

CERELS - GENERATES MDDL COMMANDS ON A FILE FOR ALL

ENTITIES IN A RELATION.

CESTRUC - GENERATES MDDL COMMANDS ON A FILE FOR ALL

ENTITIES FOR THE STRUCT

CMBENT - CONROLS THE PROCESSING LOGIC FOR THE COMBINE

ENTITY COMMAND.

- CONTROLS THE PROCESSING LOGIC FOR THE COPY CPYMOD

MODEL COMMAND.

FCOPATT - GENERATE NDDL COMMANDS FROM A COPY ATTRIBUTE

COMMAND

- MERGE TWO IDEF MODELS INTO ONE MRGMOD

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CMBACAL

PURPOSE:

GENERATE CREATE ALIAS ATTRIBUTE.. AND

ALIAS DESC TEXT COMMA

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

CMBACAL

SOURCE FILE TYPE:

. PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

This routine selects all the alias for an attribute given the ac-no. Each time an alias name is selected the target model is checked. If the alis does not exist in the target model, NDDL statements to create the alias in the target model are generated. If descriptions are not excepted, NDDL statements to create descriptions of the alias are also generated.

#### **ARGUMENTS:** \_\_\_\_\_

TO-MOD-NO = DSPLY [S9(9)]AC-NO = DSPLY [S9(9)]AC-NAME = DSPLY [X(30)]DESC-FLAG = DSPLY [9]

# INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR

ERRPRO - PROCESS ERROR INCLUDE FILE

# ROUTINES CALLED:

VERATT - VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A

MODEL

GENALI - GENERATE A CREATE ALIAS COMMAND FOR AN OBJECT

TYPE

**ERRPRO** 

# CALLED DIRECTLY BY:

CMBOA

- GENERATE COMMANDS FOR ATTRIBUTES, ITS KEYWORDS, ALIAS, DESC

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

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NAME: CMBALI

PURPOSE: GENERATE CREATE ALIAS ENTITY..COMMAND

LANGUAGE: VAX-11 COBOL MODULE TYPE: SUBROUTINE

SOURCE FILE: CMBALI SOURCE FILE TYPE: .PRC

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE DETERMINES IF THE FROM-EC-NAME EXISTS IN THE TO-MODEL AS AN ALIAS OF THE TO-EC. IF IT DOESN'T, GENERATE "CREATE ALIAS ENTITY" COMMAND.

## ARGUMENTS:

TO-MODEL-NO = DSPLY [S9(9)]
FROM-EC-NO = DSPLY [S9(9)]
TO-EC-NO = DSPLY [S9(9)]
TO-EC-NAME = DSPLY [X(50)]
COMBINE-TYPE = DSPLY [9]

# INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

#### ROUTINES CALLED:

GENALI - GENERATE A CREATE ALIAS COMMAND FOR AN OBJECT

TYPE

VERALI - VERIFY THE EXISTENCE OF AN ALIAS NAME FOR AN

ENTITY

## **ERRPRO**

## CALLED DIRECTLY BY:

GENENT1 - GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CHBEKY

PURPOSE:

GENERATE ADD KEYWORD CLAUSE FOR ENTITY

KEYWORDS

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTINE

SOURCE FILE:

CMBEKW

SOURCE FILE TYPE:

. PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE GENERATES THE ADD KEYWORD PHRASE IN COMBINE ENTITY FOR EACH KEYWORD FOUND IN THE FROM MODEL, BUT NOT FOUND IN THE TO-MODEL.

## ARGUNENTS:

FROM-EC-NO = DSPLY [S9(9)] TO-EC-NO = DSPLY [S9(9)] CREATE-FLAG = DSPLY [9] COMBINE-TYPE = DSPLY [9]

KW-COUNT - DSPLY [89(9)]

### INCLUDE FILES:

**SRVRET** - AS THE RETURN GIVEN A TABLE-FULL ERROR

ERRPRO - PROCESS ERROR INCLUDE FILE

## ROUTINES CALLED:

VERKVE - VERIFY THE EXISTENCE OF ENTITY CLASS KEYWORD
ADPARM1 - CREATES 80 CAHR NDDL COMMANDS WITH PARAMETERS

AT TITE CUMANIOU DUUM ANAO VO CATA

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AND DELIMITERS

# **ERRPRO**

# CALLED DIRECTLY BY:

GENERT1 - GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

**CMBENT** 

PURPOSE:

CONROLS THE PROCESSING LOGIC FOR THE

COMBINE ENTITY COMMAND

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

CMBENT

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE CONROLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND. IT GENERATES THE NECESSARY NDDL COMMANDS TO POPULATE THE TO-MODEL WITH THE ALIASES, DESCRIPTIONS, RELATIONS AND ATTRIBUTES ASSOCIATED WITH THE FROM-MODEL ENTITY. ENTITIES MAY BE COMBINED WITHIN THE SAME MODEL (INTRA MODEL) OR BETWEEN TWO MODELS (INTER-MODEL).

NOTE: O = INTRA-MODEL COMBINE

- 1 INTER-MODEL COMBINE
- O USER WANTS KEYWORDS, ALIASES AND/OR DESCRIPTIONS
- 1 USER WANTS THE ABOVE EXCEPTED.

## ARGUMENTS:

MODEL-NO = DSPLY [S9(9)]MODEL-NAME = DSPLY [X(30)]

### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS
RELTBL - LIST OF RELATION CLASSES IN A MODEL
CHKMODL - DETERMINE IF CURRENT MODEL EXISTS FOR A SESSION
ERRPRO - PROCESS ERROR INCLUDE FILE

# ROUTINES CALLED:

UERROR	- ISSUE A MESSAGE TO THE USER, CONSIDERED A
CPFONE	
CPFNXT	
EXCFLAG	- DETERMINE IF KEYWORDS, ALIASES, DESCR ARE TO BE EXCLUDED
VERMOD	<ul> <li>verify the existence of a model and return the unique number.</li> </ul>
VERENT	- VERIFY THE EXISTENCE OF AN ENTITY CLASS IN A MODEL
OPMFIL	
ADDPARM	- WRITES 80 CHAR MDDL COMMAND WITH PARAMENTERS CHECKS/DELINITER
FRTOREL	- DETERMINE IF RELATION EXISTS BETVEEN INTRA-MOD ENTITIES
BLKCL1	- STORE ALL KEY CLASS INFO FOR AN ENTITY IN A LIST
GENENT1	- GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.
DEPFROM	- GENERATE CREATE RELATION, DESCRIBE COMMANDS IN THE TO-MODEL
GENALTE	- GENERATE AN ALTER ENTITY ADD KEY CLASS COMMAND
INDFROM	- RETRIEVES RELATIONS, DETERMINES IND EC AND GENERATES NOOL
CLSFIL	- THIS ROUTINE CLOSES AN OUTPUT FILE. THE FILE WILL
ERRPRO	

# CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

# USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

MAME:

CHEBOA

PURPOSE:

GENERATE COMMANDS FOR ATTRIBUTES, ITS

KEYWORDS, ALIAS, DESC

LANGUAGE:

VAX-11 COBOL

MODULE TYPE:

SUBROUTIME

SOURCE FILE:

CMBOA

SOURCE FILE TYPE:

. PRC

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE GENERATES A CREATE ATTRIBUTE COMMAND FOR EACH OWNED ATTRIBUTE, ALONG WITH THEIR RETWORDS, ALIASES AND DESCRIPTIONS.

## **ARGUMENTS:**

TO-MOD-NO = DSPLY [89(9)]
FROM-EC-NO = DSPLY [89(9)]
TO-EC-NAME = DSPLY [X(30)]
KW-FLAG = DSPLY [9]
ALIAS-FLAG = DSPLY [9]
DESC-FLAG = DSPLY [9]
COMBINE-TYPE = DSPLY [9]
CREATE-FLAG = DSPLY [9]
ATT-COUNT = DSPLY [89(9)]

#### INCLUDE FILES:

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR ERRPRO - PROCESS ERROR INCLUDE FILE

## ROUTINES CALLED:

VERATT - VERIFY THE EXISTENCE OF AN ATTRIBUTE CLASS IN A MODEL

GENATT - GENERATE A CREATE ATTRIBUTE.. COMMAND
GENDESC - GENERATED NDDL DESCRIPE COMMANDS BOD A - GENERATED NDDL DESCRIBE COMMANDS FOR A GIVEN

OBJECT TYPE AND NO

CHBACAL - GENERATE CREATE ALIAS ATTRIBUTE.. AND ALIAS

DESC TEXT COMMANDS

ADPARM1 - CREATES 80 CAHR NDDL COMMANDS WITH PARAMETERS

AND DELIMITERS

**ERRPRO** 

### CALLED DIRECTLY BY:

GENERT1 - GENERATE CREATE/ALTER ENTITY COMMAND, ALIAS, AND DESCRS.

# USED IN MAIN PROGRAM(S):

MDDL/MAIN - MAIN PROGRAM FOR THE MDDL COMMAND PROCESSOR

NAME:

**CMBRKW** 

PURPOSE:

SELECT AND GENERATE RELATION CLASS

KEYWORDS

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

CMBRKW . PRC

SOURCE FILE TYPE: HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION: ·

~-----

THIS ROUTINE SELECTS A RELATION CLASS KEYWORD GIVEN THE RELATION CLASS NUMBER.

### **ARGUMENTS:**

FROM-RC-NO = DSPLY [S9(9)]TO-RC-NO = DSPLY [S9(9)]

### INCLUDE FILES: . . . . . . . . . . . . . . . . . . .

SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR

ERRPRO

- PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

VERKUR - VERIFIES THE EXISTANCE OF A RELATION CLASS

KEYWORD.

ADDPARM - WRITES 80 CHAR NDDL COMMAND WITH PARAMENTERS

CHECKS/DELIMITER

ERRPRO

# CALLED DIRECTLY BY:

DEPFRON - GENERATE CREATE RELATION, DESCRIBE COMMANDS IN

THE TO-MODEL

INDFROM - RETRIEVES RELATIONS, DETERMINES IND EC AND

GENERATES NDDL

MRGMOD2 - CONTROL THE LOGIC FOR PROCESSING THE REMAINING

MODEL 2

### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

**CMPMOD** 

PURPOSE:

CONTROLS THE PROCESSING LOGIC TO COMPARE

TWO MODELS.

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE: PROGRAM CMPMOD

SOURCE FILE TYPE:

.COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

THIS COMMAND CONTROLS THE PROCESSING LOGIC TO COMPARE TWO MODELS, AND OUTPUTS THE DIFFERENCES.

AFTER EXTRACTING AND VERIFYING THAT THE 2 MODELS EXIST. COMPARE THE ENTITIES. ATTRIBUTES AND KEYWORDS WITHIN THE MODEL.

### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

- PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.

- verify the existence of a model and return the

unique number.

- ISSUE A MESSAGE TO THE USER, CONSIDERED A UERROR

RETREC1 - COMPARES ENTITY CLASS NAMES FOR TWO MODELS RETRAC1 - DETERMINES IF ANY ATTRIBUTE CLASS NAMES MATCH

BETWEEN MODELS

ENTKW - SEARCH FOR ENTITY KEYWORD MATCHES WITHIN TWO

and the state of t

MODELS

ATTKW - CONTROLS PROCESSING TO POPULATE KEYWORD TABLE

FOR AUC KEYWORD

RELKW - CHECKS RC KW BETWEEN MODELS

ERRPRO

CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

COBINDM

PURPOSE:

ORACLE ROUTINE

LANGUAGE:

C

MODULE TYPE:

FUNCTION

FUNCTION TYPE:

INT ()

SOURCE FILE:

ORA54C

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION: -------

SYMOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS: -------

CURSOR -

SHORT [32]

SOLVARMUM =

INT

PROGVAR -

CHAR \*

PROGVL -FTYPE -

INT INT

ROUTINES CALLED:

OBINDM

CALLED DIRECTLY BY:

ALLATT

- SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

GENERATE

ALLENT

- SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

GENERATE

ALLREL

- FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

GENERATE

ALTSMAP

- ALTER A SINGLE MAP

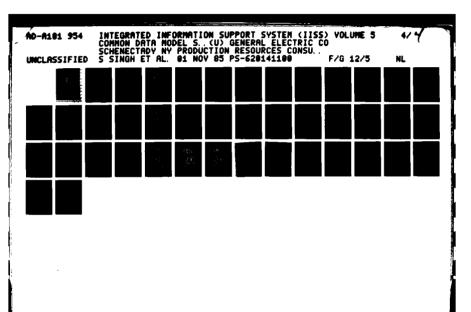
BLOOPCK

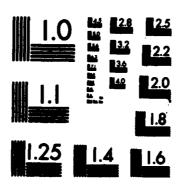
- CHECK FOR LOOPS FROM THE ENTITY GIVEN UP THE

HIERARCHY

BLRCKC

- FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND





MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A

```
BLRCKC1
           - FOR EACH LEVEL OF RELATIONS IN STRUCTURE
CHKLOOP
            - CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS
DEL 1 PDF
            - DELETE A RECORD FROM PROJECT DATA FIELD ENITY
DELAC
            - DELETE A RECORD FROM ATTRIBUTE CLASS
DELACAL
            - DELETE RECORD CLASS FROM ATTRIBUTE MAME
DELACKY
DELACKY
            - DELETE A RECORD PROM AC KEYWORD
            - DELETE RECORD CLASS FROM ATTRIBUTE NAME WHERE
                      AC NO
             - DELETE FROM ATTRIBUTE USE CLASS MAPPING
DELASM
             - DELETE A RECORD FROM AUC ST MAPPING ENITY
DELASMI
DELASM2
            - DELETE A RECORD FROM AUC ST MAPPING ENITY
            - DELETE A RECORD FROM ATTRIBUTE USE CL
DELAUCL
DELCMPR
            - DELETE A RECORD FROM COMPLETE RELATION
            - DELETE A RECORD FROM COMPLETE RELATION
DELCPRC
DELDAA1
           - DELETE A RECORD FROM DB AREA ASSIGNMENT ENITY
DELDAA2
DELDBA1
             - DELETE A RECORD FROM DB AREA ASSIGNMENT ENITY
             - DELETE A RECORD FROM DATA BASE AREA ENITY
DELDBS 1
             - DELETE A RECORD FROM DATA BASE ENITY
DELDPL1
             - DELETE A RECORD FROM DATA FIELD ENITY
             - CONTROLS THE DELETING OF DATA FIELDS
DELDFL2
             - DELETE A RECORD FROM DATA FIELD ENITY
DELDFL3
DELDOM - DELETE RECORD CLASS FROM DOMAIN CLASS
DELDSL1 - DELETE A RECORD FROM DF SET LINKAGE ENITY
DELDSL2 - DELETE A RECORD FROM DF SET LINKAGE ENITY
DELDSL3 - DELETE A RECORD FROM DF SET LINKAGE ENITY
DELDT
             - DELETE RECORD CLASS FROM USER DEF DATA TYPE
DELDTD
             - DELETE RECORD CLASS FROM USER DEF DATA-TYPE
             - DELETE THE RECORD FROM ENTITY CLASS
DELEC
DELECAL
           - DELETE RECORD CLASS FROM ENTITY NAME
DELECKA
           - DELETE A RECORD FROM EC KEYWORD
DELECNM
           - DELETE THE RECORD FROM ENTITY NAME
             - DELETE RECORD CLASS FROM AUC_ST MAPPING
DELIASM
DELIAUC
             - DELETE A REORD FROM INHERITED ATT USE
             - DELETE A RECORD FROM INHERITED ATT USE ENITY
DELIAUK
             - DELETE RECORD CLASS FROM PROJECT DATA FIELD
DELIPDF
DELIRCS
             - DELETE RECORD CLASS FROM RC BASED REC SET
             - DELETE A RECORD FROM INS SEGMENT SIZE ENITY
DELISS1
            - DELETE A RECORD FROM IMS_SEGMENT_SIZE ENITY
DELISS2
DELKCM
DELKCMT
           - DELETE A RECORD FROM KEY CLASS
             - DELETE A RECORD FROM KEY CLASS MEMBER
             - DELETE A RECORD FROM KEY CLASS MEMBER
             - DELETE A RECORD FROM AC KEYWORD
DELKWAC - DELETE A RECORD FROM AC KEYWORD
DELKWEC - DELETE A RECORD FROM EC KEYWORD
DELKWRC - DELETE A RECORD FROM RC KEYWORD
DELMIGK - DELETE MIGRATING KEY CLASS
DELKA
```

```
DELMOD
           - DELETE A RECORD FROM MODEL CLASS ENITY
DELMTKC
           - DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER
           - DELETE A RECORD FROM OWNED ATTRIBUTE ENITY
DELOACE
           - DELETE A RECORD FROM OWNED ATTRIBUTE
DELOVAC
DELPCB
           - DELETE A RECORD FROM PSB PCB ENITY
           - DELETE A RECORD FROM PROJECT_DATA_FIELD ENITY
DELPDFT
DELPDI
           - DELETE RECORD CLASS FROM PROJECT DATA ITEM
DELRBR1
           - DELETE A RECORD FROM RC BASED REC SET ENITY
DELRBR2
           - DELETE A RECORD FROM RC BASED REC SET ENITY
DELRBR3
           - DELETE A RECORD FROM RC BASED REC SET ENITY
           - DELETE A RECORD FROM RELATION CLASS
DELRCKW
           - DELETE A RECORD FROM RC KEYWORD
DELRCST
           - DELETE RECORD CLASS FROM RC BASED REC SET
DELREUS
DELRKM1
           - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
           - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
DELRKM2
DELRKM3
           - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
DELRKY1
           - DELETE A RECORD FROM RECORD KEY ENITY
DELRKY2
           - DELETE A RECORD FROM RECORD KEY ENITY
           - DELETE A RECORD FROM RECORD SET ENTITY
DELRST2
DELRST3
           - DELETE A RECORD FROM RECORD SET ENITY
DELRTY2
           - DELETE A RECORD FROM RECORD TYPE ENITY
DELSDF1
           - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
DELSDF2
           - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
           - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
DELSDF3
           - DELETE RECORD CLASS FROM SEC
DELSEC
           - DELETE RECORD CLASS FROM SEC_RC_COMPONENT
DELSECR
DELSN1
           - DELETE A RECORD FROM SCHEMA NAMES ENITY
DELSTM1
           - DELETE A RECORD FROM SET TYPE MEMBER ENITY
           - DELETE A RECORD FROM SET TYPE MEMBER ENTITY
DELSTM2
          - DELETE A RECORD FROM SET TYPE MEMBER ENITY
DELSTM3
DELTEXT
           - DELETE A RECORD FROM DESC TEXT ENITY
           - DELETE DESCRIPTION TEXT GIVEN THE OBJECT TYPE.
DEPATT
           - SELECT ALL THE ATTRIBUTES IN THE
           - SELECT ALL THE DEPENDANT ENTITY CLASSES
DEPENT
          - FOR EACH LEVEL OF RELATIONS IN STRUCTURE
DEPREL
                   GENERATE
DLDSL2
           - DELETE A RECORD FROM DF SET LINKAGE ENTITY
DLMIGRC
           - DELETE MIGRATING KEY CLASS
DPKCLST
           - CREATE AN KEY CLASS LIST TABLE CONTAINING ALL
                   THE ENTITY
           - DELETE A RECORD FROM DATA_FIELD ENITY
DRPDF
GETNXNO
           - INSERT A RECORD INTO ATTRIBUTE CLASS
INSAC
INSACNM
           - INSERT A RECORD INTO ATTRIBUTE NAME
INSAREA
           - INSERT A RECORD INTO THE DATA BASE AREA ENTITY.
                    IF
```

```
- INSERT A RECORD INTO ATTRIBUTE USE CL
INSAUC
           - INSERT A RECORD INTO AUC ST NAPPING
INSAUCS
           - INSERT A RECORD INTO COMPLETE RELATION
INSCRC
INSDAA
           - INSERT A RECORD INTO THE DB AREA ASSIGNMENT
                   ENTITY. IF
INSDB
           - INSERT A RECORD INTO THE DATA BASE ENTITY.
INSDFLD
           - INSERT A RECORD INTO THE DATA FIELD ENTITY.
           - INSERT A RECORD INTO DATA ITEM
INSDI
           - INSERT A RECORD INTO DOMAIN CLASS
INSDOM
           - INSERT A RECORD INTO THE DF SET LINKAGE ENTITY.
INSDSL
                    IF
           - INSERT A RECORD INTO USER_DEF_DATA_TYPE
INSDT
           - INSERT A RECORD INTO ENTITY CLASS
INSEC
           - INSERT A RECORD INTO ENTIYT NAME
INSECHM
INSIAUC
           - INSERT A RECORD INTO INHERITED ATT USE
           - INSERT A RECORD INTO THE INS SEGMENT SIZE
INSISS
                   ENTITY. IF
           - INSERT A RECORD INTO KEY CLASS
INSKC
INSKCM
           - INSERT A RECORD INTO KEY CLASS HEMBER
           - INSERT A RECORD INTO KEYWORD
           - INSERT A RECORD INTO AC KEYWORD
INSKWAC
           - INSERT A RECORD INTO EC KEYWORD
INSKWEC
INSKWRC
           - INSERT A RECORD INTO RC KEYWORD
INSMOD
           - INSERT A RECORD INTO MODEL CLASS
           - INSERT A RECORD INTO OWNED ATTRIBUTE
INSOAC
           - INSERT A RECORD INTO THE PSB PCB ENTITY.
INSPCB
INSPDF
           - INSERT A RECORD INTO PROJECT_DATA_FIELD
INSPDI
           - INSERT A RECORD INTO PROJECT DATA ITEM
           - INSERT A RECORD INTO THE PSB ENTITY.
           - INSERT A RECORD INTO THE DB PASSWORD. IF
INSPARD
                   SUCCESSFUL,
INSRC
           - INSERT A RECORD INTO RELATION CLASS
           - INSERT A RECORD INTO RC BASED REC SET
INSRCRS
INSREUS
           - INSERT A RECORD INTO REUSABLE MUMBER
           - INSERT A RECORD INTO THE RECORD KEY ENTITY.
INSRKEY
INSRKM
           - INSERT A RECORD INTO THE RECORD KEY MEMBER
                   ENTITY. IF
           - INSERT A RECORD INTO THE RECORD SET ENTITY.
INSRSET
           - INSERT A RECORD INTO THE RECORD TYPE ENTITY.
INSRTYP
           - INSERT A RECORD INTO THE SCHEMA NAMES ENTITY.
INSSCH
INSSDFL
           - INSERT A RECORD INTO THE SEGMENT DATA FIELD
                   ENTITY. IF
INSSEC
           - INSERT A RECORD INTO SEC
           - INSERT A RECORD INTO SEC RC COMPONENT
INSSECR
           - INSERT A RECORD INTO THE SET TYPE MEMBER
Insstm
                   ENTITY. IF
```

```
MRGMOD2
          - CONTROL THE LOGIC FOR PROCESSING THE REMAINING
                  MODEL 2
MRGNODE
           - SELECT ALL THE TOP MODE (LEVEL 1) INDEPENDENT
                  ENTITY'S
NRGET
RDDESC
           - STORE DESCRIPTION ON THE CDM
           - SELECTS ALL THE INHERITED TAG NAMES
SELIAUC
           - CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE
TLOOPCK
                  HIERARCHY
           - SELECT ALL THE LEVEL 1 TOP NODE INDEPENDENT
TOPMODE
                   ENTITY
UPDAC
           - UPDATE ATTRIBUTE CLASS SET DOMAIN NO = : 1
           - UPDATE MODEL CLASS SET AC NAME TYPE = : 1
UPDACAL
UPDACNM
           - UPDATE ATTRIBUTE NAME SET AC NAME - : 1
           - UPDATE HODEL_CLASS SET EC NAME TYPE = : 1
UPDECAL
UPDECNM
           - UPDATE MODEL CLASS SET ENTITY NAME - : 1
           - UPDATE USER DEF DATA TYPE SET DATA TYPE IND - :
UPDIND
UPDMNAM
           - UPDATE MODEL CLASS SET MODEL NAME = : 1
           - UPDATE MODEL CLASS SET MODEL STATUS = : 1
UPDMOD
UPDNXNO
UPDRCNM
           - UPDATE RELATION CLASS SET RC NAME = : 1
UPDTDOM
           - UPDATE DOMAIN SET DOMAIN NAME = : 1
           - UPDATE USER DEF DATA TYPE SET TYPE ID = : 1
UPDTDT
           - UPDATE KEYWORD SET KEYWORD = : 1
UPDTKW
UPDTRC
           - UPDATE RELATION CLASS SET NO IND ENT = : 1.
UPDVIEW
         - UPDATE VIEW SET SEC ID = : 1
         - SELECT A RECORD FROM DESC TEXT ENITY
WRTDESC
          - SELECT A RECORD FROM DESC TEXT ENITY
WRTDSC4
```

# USED IN MAIN PROGRAM(S):

DELDFL1 - DELETE A RECORD FROM DATA\_FIELD ENITY

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

COCLOSE

PURPOSE:

ORACLE ROUTINE

LANGUAGE:

MODULE TYPE:

FUNCTION

FUNCTION TYPE:

INT ()

SOURCE FILE:

ORA34C

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYNOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS:

------

CURSOR = SHORT [32]

ROUTINES CALLED:

OCLOSE

CALLED DIRECTLY BY:

TERMSES - ROUTINE TO TERMINATE AN NDDL

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COHMAND PROCESSOR

MAME: COCOF

PURPOSE: ORACLE ROUTINE

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT () SOURCE FILE: ORA54C

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

SEE ORACLE USER MAMUAL

ARGUMENTS:

LDA = SHORT [32]

ROUTINES CALLED:

OCOF

CALLED DIRECTLY BY:

INITSES - PERFORM ANY SESSION INITIALIZATION NECESSARY

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

COCOM

PURPOSE:

ORACLE ROUTINE

LANGUAGE:

C

MODULE TYPE:

PUNCTION

FUNCTION TYPE:

INT ()

SOURCE FILE:

ORA34C

SOURCE FILE TYPE:

.C

**HOST:** 

CDM

SUBSYSTEM: SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

------SYMOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS:

LDA - SHORT [52]

ROUTINES CALLED:

OCOM

CALLED DIRECTLY BY:

COMMIT - STORE THE REUSEABLE NUMBER TO THE DATA BASE.

USED IN MAIN PROGRAM(S):

WDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

CODFINN

PURPOSE:

ORACLE ROUTINE

LANGUAGE:

MODULE TYPE: FUNCTION TYPE: FUNCTION

INT ()

SOURCE FILE: SOURCE FILE TYPE: ORA34C

HOST:

.C

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYNOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS:

CURSOR =

SHORT [32]

POS =

BUFFER =

CHAR \*

BUFL = FTYPE = INT INT

ROUTINES CALLED:

ODFINN

CALLED DIRECTLY BY:

- SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND ALLATT

GENERATE

ALLENT - SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

GENERATE

ALLREL - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

GENERATE

- CHECK FOR LOOPS FROM THE ENTITY GIVEN UP THE BLOOPCK

HIERARCHY

- FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND BLRCKC

- FOR EACH LEVEL OF RELATIONS IN STRUCTURE

CHIKLOOP	- CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS
DELDFL2	- CONTROLS THE DELETING OF DATA FIELDS
DELMICK	- DELETE MIGRATING KEY CLASS
DELMTKC	- DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER
DEPATT	- SELECT ALL THE ATTRIBUTES IN THE
DEPENT	- SELECT ALL THE DEPENDANT ENTITY CLASSES
DEPREL	- FOR EACH LEVEL OF RELATIONS IN STRUCTURE GENERATE
DLMIGRC	- DELETE MIGRATING KEY CLASS
DPKCLST	- CREATE AN KEY_CLASS_LIST TABLE CONTAINING ALL THE ENTITY
GETNXNO	-
MRGMOD2	- CONTROL THE LOGIC FOR PROCESSING THE REMAINING MODEL 2
MRGNODE	- SELECT ALL THE TOP NODE (LEVEL 1) INDEPENDENT ENTITY'S
NRGET	-
SELIAUC	- SELECTS ALL THE INHERITED TAG NAMES
TLOOPCK	- CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE HIERARCHY
TOPHODE	- SELECT ALL THE LEVEL 1 TOP WODE INDEPENDENT ENTITY

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

COERMSG

PURPOSE:

ORACLE ROUTINE

LANGUAGE:

MODULE TYPE:

FUNCTION

FUNCTION TYPE:

INT () ORA34C

SOURCE FILE:

.C

SOURCE FILE TYPE: HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION: \_\_\_\_\_

SYNOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS:

------RCODE =

INT

MSGBUF -

CHAR \*

ROUTINES CALLED:

OERMSG

CALLED DIRECTLY BY:

ERRRPT - HANDLE ANY ERROR CODE FROM ORACLE,

USED IN MAIN PROGRAM(S):

DELDFL1 - DELETE A RECORD FROM DATA FIELD ENITY

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

COEXEC NAME:

PURPOSE: ORACLE ROUTINE

LANGUAGE:

FUNCTION MODULE TYPE: FUNCTION TYPE: INT () SOURCE FILE: ORA34C .C

SOURCE FILE TYPE:

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION: \_\_\_\_\_

SYNOPSIS

SEE ORACLE USER MANUAL

**ARGUMENTS:** 

\_\_\_\_\_

CURSOR = SHORT [32]

ROUTINES CALLED:

OEXEC

CALLED DIRECTLY BY:

- SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND ALLATT

GENERATE

ALLENT - SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

**GENERATE** 

- FOR EACH LEVEL OF RELATIONS IN FROM-MODEL ALLREL

GENERATE

ALTSMAP - ALTER A SINGLE MAP BLOOPCK - CHECK FOR LOOPS FRO - CHECK FOR LOOPS FROM THE ENTITY GIVEN UP THE

HIERARCHY

BLRCKC - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND

BLRCKC1 - FOR EACH LEVEL OF RELATIONS IN STRUCTURE
CHKLOOP - CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS
DELIPDF - DELETE A RECORD FROM PROJECT\_DATA\_FIELD ENITY

DELAC - DELETE A RECORD FROM ATTRIBUTE CLASS

```
- DELETE RECORD CLASS FROM ATTRIBUTE NAME
DELACAL
DELACKW
           - DELETE A RECORD FROM AC KEYWORD
           - DELETE RECORD CLASS FROM ATTRIBUTE NAME WHERE
DELACNM
                   AC NO
           - DELETE FROM ATTRIBUTE USE CLASS MAPPING
DELASM
DELASM1
           - DELETE A RECORD FROM AUC ST MAPPING ENITY
DELASM2
           - DELETE A RECORD FROM AUC ST MAPPING ENITY
DELAUCL
           - DELETE A RECORD FROM ATTRIBUTE USE CL
           - DELETE A RECORD FROM COMPLETE RELATION
DELCMPR
DELCPRC
DELDAA1
           - DELETE A RECORD FROM COMPLETE RELATION
           - DELETE A RECORD FROM DB_AREA_ASSIGNMENT ENITY
           - DELETE A RECORD FROM DB AREA ASSIGNMENT ENITY
DELDAA2
DELDBA1
           - DELETE A RECORD FROM DATA BASE AREA ENITY
DELDBS1
           - DELETE A RECORD FROM DATA BASE ENITY
DELDFL1
           - DELETE A RECORD FROM DATA FIELD ENITY
DELDFL2
           - CONTROLS THE DELETING OF DATA FIELDS
           - DELETE A RECORD FROM DATA FIELD ENITY
DELDFL3
           - DELETE FROM DATA ITEM WHERE
DELDIV
DELDOM
           - DELETE RECORD CLASS FROM DOMAIN CLASS
DELDSL1
           - DELETE A RECORD FROM DF_SET_LINKAGE ENITY
DELDSL2
           - DELETE A RECORD FROM DF SET LINKAGE ENITY
DELDSL3
           - DELETE A RECORD FROM DF SET LINKAGE ENITY
           - DELETE RECORD CLASS FROM USER DEF DATA TYPE
DELDT
DELDTD
           - DELETE RECORD CLASS FROM USER DEF DATA-TYPE
           - DELETE THE RECORD FROM ENTITY CLASS
DELEC
           - DELETE RECORD CLASS FROM ENTITY NAME
DELECAL
           - DELETE A RECORD FROM EC KEYWORD
DELECKW
           - DELETE THE RECORD FROM ENTITY NAME
DELECNM
           - DELETE RECORD CLASS FROM AUC ST MAPPING
DELIASM
           - DELETE A REORD FROM INHERITED ATT USE
DELIAUC
           - DELETE A RECORD FROM INHERITED ATT USE ENITY
DELIAUK
DELIPDF
           - DELETE RECORD CLASS FROM PROJECT DATA FIELD
           - DELETE RECORD CLASS FROM RC_BASED_REC_SET
DELIRCS
           - DELETE A RECORD FROM IMS_SEGMENT_SIZE ENITY
DELISSI
           - DELETE A RECORD FROM IMS SEGMENT SIZE ENITY
DELISS2
           - DELETE A RECORD FROM KEY CLASS
DELKC
           - DELETE A RECORD FROM KEY CLASS MEMBER
DELKCM
           - DELETE A RECORD FROM KEY CLASS MEMBER
DELKCMT
DELKW
           - DELETE A RECORD FROM AC KEYWORD
DELKWAC
           - DELETE A RECORD FROM AC KEYWORD
DELKWEC
           - DELETE A RECORD FROM EC KEYWORD
DELKWRC
           - DELETE A RECORD FROM RC KEYWORD
DELMIGK
           - DELETE MIGRATING KEY CLASS
           - DELETE A RECORD FROM MODEL CLASS ENITY
DELMOD
DELMTKC
          - DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER
DELOACE - DELETE A RECORD FROM OWNED_ATTRIBUTE ENITY
DELOWAC - DELETE A RECORD FROM OWNED_ATTRIBUTE
```

**MENSONS CONTROLLER CO** 

```
- DELETE A RECORD FROM PSB PCB ENITY
DELPCB
DELPDFT
              - DELETE A RECORD FROM PROJECT DATA FIELD ENITY
              - DELETE RECORD CLASS FROM PROJECT DATA ITEM
DELPDI
DELRBR1
              - DELETE A RECORD FROM RC BASED REC SET ENITY
              - DELETE A RECORD FROM RC BASED REC SET ENITY
DELRBR2
              - DELETE A RECORD FROM RC BASED REC SET ENITY
DELRBR3
              - DELETE A RECORD FROM RELATION CLASS
DELRC
DELRCKY
              - DELETE A RECORD FROM RC KEYWORD
DELRCST
             - DELETE RECORD CLASS FROM RC BASED REC SET
DELREUS
DELREM1 - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
DELREM2 - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
DELREM3 - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
DELREM3 - DELETE A RECORD FROM RECORD KEY ENITY
              - DELETE A RECORD FROM RECORD KEY ENITY
DELRKY2
              - DELETE A RECORD FROM RECORD SET ENTITY
DELRST2
DELRST3
              - DELETE A RECORD FROM RECORD SET ENITY
DELSDF1 - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
DELSDF2 - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
DELSDF3 - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
              - DELETE RECORD CLASS FROM SEC
DELSEC
              - DELETE RECORD CLASS FROM SEC RC COMPONENT
DELSECR
              - DELETE A RECORD FROM SCHEMA NAMES ENITY
DELSN1
DELSTM1
              - DELETE A RECORD FROM SET TYPE MEMBER ENITY
            - DELETE A RECORD FROM SET TYPE MEMBER ENTITY
- DELETE A RECORD FROM SET TYPE MEMBER ENITY
DELSTM2
DELSTM3
DELTEXT - DELETE A RECORD FROM DESC TEXT ENITY
DELTXT - DELETE DESCRIPTION TEXT GIVEN THE OBJECT TYPE,
DEPATT - SELECT ALL THE ATTRIBUTES IN THE
DEPENT - SELECT ALL THE DEPENDANT ENTITY CLASSES
DEPREL - FOR EACH LEVEL OF RELATIONS IN STRUCTURE
                         GENERATE
DLDSL2
              - DELETE A RECORD FROM DF SET LINKAGE ENTITY
DLMIGRC - DELETE MIGRATING KEY CLASS
DPKCLST - CREATE AN KEY_CLASS_LIST TABLE CONTAINING ALL
                         THE ENTITY
DRPDF
               - DELETE A RECORD FROM DATA FIELD ENITY
GETNXNO
INSAC
INSACNM
               - INSERT A RECORD INTO ATTRIBUTE CLASS
              - INSERT A RECORD INTO ATTRIBUTE NAME
INSAREA
              - INSERT A RECORD INTO THE DATA BASE AREA ENTITY.
                          IF
              - INSERT A RECORD INTO ATTRIBUTE USE CL
INSAUC
INSAUCS
INSCRC
INSDAA
              - INSERT A RECORD INTO AUC_ST_MAPPING
              - INSERT A RECORD INTO COMPLETE RELATION
              - INSERT A RECORD INTO THE DB AREA ASSIGNMENT
```

```
ENTITY. IF
INSDB
           - INSERT A RECORD INTO THE DATA BASE ENTITY.
           - INSERT A RECORD INTO THE DATA FIELD ENTITY.
INSDFLD
           - INSERT A RECORD INTO DATA_ITEM
IMSDI
           - INSERT A RECORD INTO DOMAIN CLASS
INSDOM
INSDSL
           - INSERT A RECORD INTO THE DF SET LINKAGE ENTITY.
                    IF
           - INSERT A RECORD INTO USER DEF DATA TYPE
INSDT
INSEC
           - INSERT A RECORD INTO ENTITY CLASS
           - INSERT A RECORD INTO ENTIYT NAME
INSECUM
           - INSERT A RECORD INTO INHERITED ATT USE
INSIAUC
           - INSERT A RECORD INTO THE IMS_SEGMENT_SIZE
INSISS
                   ENTITY. IF
INSKC
           - INSERT A RECORD INTO KEY CLASS
INSKCH
           - INSERT A RECORD INTO KEY CLASS MEMBER
           - INSERT A RECORD INTO KEYWORD
Inska
           - INSERT A RECORD INTO AC KEYWORD
INSKWAC
           - INSERT A RECORD INTO EC_KEYWORD
INSKVEC
INSKURC
           - INSERT A RECORD INTO RC KEYWORD
           - INSERT A RECORD INTO MODEL CLASS
INSMOD
           - INSERT A RECORD INTO OWNED ATTRIBUTE
INSOAC
INSPCB
           - INSERT A RECORD INTO THE PSB PCB ENTITY.
INSPDF
           - INSERT A RECORD INTO PROJECT DATA FIELD
INSPDI
           - INSERT A RECORD INTO PROJECT DATA ITEM
           - INSERT A RECORD INTO THE PSB ENTITY.
INSPSB
INSPWRD
           - INSERT A RECORD INTO THE DB PASSWORD. IF
                   SUCCESSFUL.
INSRC
           - INSERT A RECORD INTO RELATION CLASS
INSRCRS
           - INSERT A RECORD INTO RC BASED REC SET
           - INSERT A RECORD INTO REUSABLE NUMBER
INSREUS
INSRKEY
           - INSERT A RECORD INTO THE RECORD KEY ENTITY.
INSRKM
           - INSERT A RECORD INTO THE RECORD KEY MEMBER
                   ENTITY.
                            IF
INSRSET
           - INSERT A RECORD INTO THE RECORD SET ENTITY.
           - INSERT A RECORD INTO THE RECORD TYPE ENTITY.
INSRTYP
           - INSERT A RECORD INTO THE SCHEMA NAMES ENTITY.
INSSCH
                   IF
INSSDFL
           - INSERT A RECORD INTO THE SEGMENT DATA FIELD
                   ENTITY. IF
INSSEC
           - INSERT A RECORD INTO SEC
INSSECR
           - INSERT A RECORD INTO SEC RC COMPONENT
           - INSERT A RECORD INTO THE SET_TYPE_MEMBER
INSSTM
                   ENTITY.
                           IF
MRGMOD2
           - CONTROL THE LOGIC FOR PROCESSING THE REMAINING
                   HODEL 2
MRGNODE
           - SELECT ALL THE TOP NODE (LEVEL 1) INDEPENDENT
```

ENTITY'S

MRGET SELIAUC - SELECTS ALL THE INHERITED TAG NAMES - CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE TLOOPCK HIERARCHY TOPHODE - SELECT ALL THE LEVEL 1 TOP NODE INDEPENDENT ENTITY UPDAC - UPDATE ATTRIBUTE CLASS SET DOMAIN NO = : 1 UPDACAL - UPDATE MODEL CLASS SET AC NAME TYPE = : 1 UPDACHH - UPDATE ATTRIBUTE NAME SET AC NAME = : 1 UPDECAL - UPDATE MODEL\_CLASS SET EC\_NAME\_TYPE = : 1 UPDECHM - UPDATE MODEL\_CLASS SET ENTITY NAME = : 1 UPDIND - UPDATE USER DEF DATA TYPE SET DATA TYPE IND = : UPDMNAM - UPDATE MODEL CLASS SET MODEL NAME = : 1 - UPDATE MODEL\_CLASS SET MODEL\_STATUS = : 1 UPDMOD UPDMXNO - UPDATE RELATION CLASS SET RC NAME = : 1 UPDRCMM - UPDATE DONAIN SET DONAIN NAME - : 1 UPDTDOM - UPDATE USER\_DEF\_DATA\_TYPE SET TYPE\_ID = : 1 UPDTDT UPDTKW - UPDATE KEYWORD SET KEYWORD - : 1 UPDTRC - UPDATE RELATION CLASS SET NO IND ENT = : 1. UPDVIEW - UPDATE VIEW SET SEC ID = : 1 WRTDESC WRTDSC4 - SELECT A RECORD FROM DESC TEXT ENITY - SELECT A RECORD FROM DESC TEXT ENITY

### USED IN MAIN PROGRAM(S):

DELDFL1 - DELETE A RECORD FROM DATA FIELD ENITY

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: COFETCH

PURPOSE: ORACLE ROUTINE

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: ORA34C

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

SYNOPSIS

SEE ORACLE USER MANUAL

**ARGUMENTS:** 

CURSOR =

CURSOR = SHORT [32]

ROUTINES CALLED:

OFETCH

CALLED DIRECTLY BY:

ALLATT - SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

ALLENT - SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND GENERATE

ALLREL - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

GENERATE

BLOOPCK - CHECK FOR LOOPS FROM THE ENTITY GIVEN UP THE HIERARCHY

BLRCKC - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND

BLRCKC1 - FOR EACH LEVEL OF RELATIONS IN STRUCTURE

CHKLOOP - CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS

DELDFL2 - CONTROLS THE DELETING OF DATA FIELDS

**GENERATE** 

DELMIGK - DELETE MIGRATING KEY CLASS

DELMTKC - DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER

DEPATT - SELECT ALL THE ATTRIBUTES IN THE DEPENT - SELECT ALL THE DEPENDANT ENTITY CLASSES DEPREL - FOR EACH LEVEL OF RELATIONS IN STRUCTURE GENERATE DLMIGRC - DELETE MIGRATING KEY CLASS DPKCLST - CREATE AN KEY CLASS LIST TABLE CONTAINING ALL THE ENTITY GETNXNO HRGMOD2 - CONTROL THE LOGIC FOR PROCESSING THE REMAINING MODEL 2 - SELECT ALL THE TOP MODE (LEVEL 1) INDEPENDENT MRGNODE ENTITY'S NRGET SELIAUC - SELECTS ALL THE INHERITED TAG NAMES - CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE TLOOPCK HIERARCHY TOPNODE - SELECT ALL THE LEVEL 1 TOP NODE INDEPENDENT ENTITY

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

COLOGOF

PURPOSE:

ORACLE ROUTINE

LANGUAGE:

C

MODULE TYPE: FUNCTION TYPE: FUNCTION

INT ()

SOURCE FILE:

ORA34C

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** 

SYNOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS:

LDA =

SHORT [32]

ROUTINES CALLED:

**OLOGOF** 

CALLED DIRECTLY BY:

TERMSES - ROUTINE TO TERMINATE AN NDDL

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

COLOM

PURPOSE:

ORACLE ROUTINE

LANGUAGE:

C

MODULE TYPE: FUNCTION TYPE: FUNCTION INT ()

SOURCE FILE:

ORA34C

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

### DESCRIPTION:

SYMOPSIS

SEE ORACLE USER MANUAL

### ARGUMENTS:

LDA = SHORT [32] UID = CHAR \* UIDLEN = INT

CHAR \* Int

PSW = AUDIT FLAG =

INT

# ROUTINES CALLED:

OLON

# CALLED DIRECTLY BY:

INITSES - PERFORM ANY SESSION INITIALIZATION NECESSARY

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

MAME:

COMMIT

PURPOSE:

STORE THE REUSEABLE NUMBER TO THE DATA

BASE.

LANGUAGE:

MODULE TYPE: PUNCTION TYPE:

PUNCTION

SOURCE FILE:

INT () COMMIT

SOURCE FILE TYPE:

.C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYNOPSIS

C

-- COMMIT(#STATUS) ;

COBOL

-- CALL "COMMIT" USING

STATUS.

FORTRAN -- CALL COMMIT (STATUS)

INPUT:

NONE

OUTPUT:

INT \*STATUS :

DESCRPIPTION:

THIS ROUTINE USES ORACLE CALLS TO STORE THE REUSEABLE

NUMBERS INTO

THE DATA BASE.

IF SUCCESSFULLY DELETED THE RECORD , THE STATUS AND

RETURN VALUE BOTH

WILL BE O , OTHERWISE -1.

ARGUMENTS:

~~~~~~ STATUS -

INT \*

### **NOUTINES CALLED:**

INSREUS - INSERT A RECORD INTO REUSABLE\_MUMBER

PRINTF

PREE

COCON - ORACLE ROUTINE

ERRRPT - HANDLE ANY ERROR CODE FROM ORACLE,

### CALLED DIRECTLY BY:

HALT - HALT WITH 'COMMIT' OR 'ROLLBACK'.

PROCHD - THIS ROUTINE IS CALLED TO HANDLE ALL

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: COOPEN

PURPOSE: ORACLE ROUTINE

.C

LANGUAGE: C

FUNCTION INT () MODULE TYPE: FUNCTION TYPE: SOURCE FILE: ORA34C SOURCE FILE TYPE:

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

**DESCRIPTION:** -----

SYNOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS:

CURSOR = SHUKI L.
T.DA = SHORT [52] SHORT [32]

INT DBN = INT DBNLEN =

DBNLEN -AREASIZ = INT INT

UIDLEN = INT

ROUTINES CALLED:

OOPEN

CALLED DIRECTLY BY:

INITSES - PERFORM ANY SESSION INITIALIZATION NECESSARY

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

COPATT

PURPOSE:

CONTROLS THE PROCESSING LOGIC FOR COPYING

AN ATTRIBUTE.

LANGUAGE:

VAX-11 COBOL

MODULE TYPE: SOURCE FILE:

SUBROUTINE

COPATT

SOURCE FILE TYPE:

. COB

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

THIS ROUTINE CONTROLS THE PROCESSING LOGIC FOR COPYING AN ATTRIBUTE TO A MODEL.

RETRIEVE THE ATTRIBUTE NAME TO BE COPIED. THEN DETERMINE IF THE COPY WILL BE DONE IMMEDIATELY OR GENERATED ON A FILE. ALSO DETERMINE WHETHER THE KEYWORDS, ALIASES OR DESCRIPTIONS ARE TO BE COPIED.

### ARGUMENTS:

MODEL-MO = DSPLY [S9(9)]

CUR-MODEL-MAME = DSPLY [X(30)]

### INCLUDE FILES:

LISTNOS - VALID LIST NUMBERS

CHKMODL

- DETERMINE IF CURRENT MODEL EXISTS FOR A SESSION

ERRPRO

- PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A

CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST

CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.

EXCFLAG - DETERMINE IF KEYWORDS, ALIASES, DESCR ARE TO BE

EXCLUDED

VERMOD - verify the existence of a model and return the

unique number.

VERACNM - RETRIEVE THE DOMAIN FOR AN ATTRIBUTE CLASS

ICOPATT - INTERACTIVE COPY ATTRIBUTE, WITH

KEYWORDS, ALIAS, DESCRS.

FCOPATT - GENERATE MDDL COMMANDS FROM A COPY ATTRIBUTE

COMMAND

**ERRPRO** 

# CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME: COPENT

PURPOSE: CONTROLS THE PROCESSING LOGIC FOR THE

COPY ENTITY COMMAND.

LANGUAGE: VAX-11 COBOL MODULE TYPE: SOURCE FILE: SUBROUTIME

COPENT SOURCE FILE TYPE: . COB

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

# DESCRIPTION:

THIS ROUTINE CONTROLS THE PROCESSING LOGIC FOR THE COPY ENTITY COMMAND. FIRST THE IMPUTS ARE RETRIEVED AND VALIDATED. THEN ONE OF TWO ROUTINES ARE CALLED DEPENDING ON WHETHER THE COMMAND EXECUTES IMMEDIATELY OR IS TO GENERATE NDDL COMMANDS ON A FILE.

# **ARGUMENTS:**

MODEL-MO = DSPLY [S9(9)]

CUR-MODEL-NAME = DSPLY [X(30)]

### INCLUDE FILES: --------

LISTNOS - VALID LIST NUMBERS

CHKMODL - DETERMINE IF CURRENT MODEL EXISTS FOR A SESSION

ERRPRO - PROCESS ERROR INCLUDE FILE

### ROUTINES CALLED:

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A
CPFONE - EXTRACT THE FIRST TOKEN FROM THE NAMED LIST
CPFNXT - ACCESS THE NEXT TOKEN IN A PARSER LIST.

EXCFLAG - DETERMINE IF KEYWORDS, ALIASES, DESCR ARE TO BE EXCLUDED

VERENT - VERIFY THE EXISTENCE OF AN ENTITY CLASS IN A

MODEL

ICOPENT - INTERACTIVE COPY ENTITY WITH

ATRRIBUTES, KEYWORDS, ALIAS, DESC

FCOPENT - DETERMINE IF COPY ENTITY WITH STRUCTURE OR

RELATION

VERMOD - verify the existence of a model and return the

unique number.

**ERRPRO** 

### CALLED DIRECTLY BY:

BRANCHR - PERFORMS MULTI-WAY CALL TO THE

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

NAME:

COPYAC

PURPOSE:

CREATE AN ATTRIBUTE, ASSOCIATE WITH

ENTITY, ADD KEY CLASSES

LANGUAGE:

VAX-11 COBOL

SOURCE FILE: COPYAC SOURCE FILE TYPE: PRC

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

# DESCRIPTION:

his routine creates an attribute, adds as owned to an entity nd finally adds all key classes for the entity class.

#### **ARGUMENTS:**

NEW-EC-NO = DSPLY [S9(9)]

OLD-EC-NO = DSPLY [S9(9)]

MODEL-NO = DSPLY [S9(9)]

KW-FLAG - DSPLY [9]

ALIAS-FLAG = DSPLY [9]

DESC-FLAG = DSPLY [9]

#### INCLUDE FILES:

KCLIST - PROCESS ERROR INCLUDE FILE
SRVRET - AS THE RETURN GIVEN A TABLE-FULL ERROR
ERRPRO - PROCESS ERROR INCLUDE FILE

# ROUTINES CALLED:

BLDATT1 - CREATES ATT CLASS AND ATT NAME FOR A

MODEL(CREATE/COPY ATT)

UERROR - ISSUE A MESSAGE TO THE USER, CONSIDERED A
ADDOAC - ADD ATTRIBUTE AS AN OWNED ATTRIBUTE AND AS ATT USE CLASS

KEYLOOK - RETRIVES KEYCLASS NAME AND NUMBER BASED ON TAG

**ERRPRO** 

# CALLED DIRECTLY BY:

ICOPENT - INTERACTIVE COPY ENTITY WITH
ATRIBUTES, KEYWORDS, ALIAS, DESC

# USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

#### MDDL COMMAND PROCESSOR Module Documentation

MAME: COROL

PURPOSE: ORACLE ROUTINE

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT () SOURCE FILE: ORAS4C

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYNOPSIS

SEE ORACLE USER MANUAL

**ARGUMENTS:** 

LDA - SHORT [32]

ROUTINES CALLED:

OROL

CALLED DIRECTLY BY:

ROLBACK - ROLBACK THE TRANSACTIONS.

USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

### MDDL CONNAND PROCESSOR Module Documentation

COSQL3

MAME:

PURPOSE: ORACLE ROUTINE

LANGUAGE: C

MODULE TYPE: FUNCTION FUNCTION TYPE: INT ()
SOURCE FILE: ORA34C

SOURCE FILE TYPE: .C

HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

SEE ORACLE USER MANUAL

ARGUMENTS:

CURSOR = SHORT [32] SQLSTATEMENT = CHAR \*

SQLLEN = INT

ROUTINES CALLED:

OSQL3

CALLED DIRECTLY BY:

ALLATT - SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

GENERATE

ALLENT - SELECT ALL THE ATTRIBUTES IN FROM-MODEL AND

GENERATE

ALLREL - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL

GENERATE

ALTSMAP - ALTER A SINGLE MAP

BLOOPCK - CHECK FOR LOOPS FROM THE ENTITY GIVEN UP THE

HIERARCHY

BLRCKC - FOR EACH LEVEL OF RELATIONS IN FROM-MODEL FIND

BLRCKC1 - FOR EACH LEVEL OF RELATIONS IN STRUCTURE

CHKLOOP - CHECK LOOP DEPENDENCY AND FOR TOPS AND BOTTOMS

<del>ĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸĸ</del>

```
- DELETE A RECORD FROM PROJECT DATA FIELD ENITY
DEL1PDF
DELAC
           - DELETE A RECORD FROM ATTRIBUTE CLASS
           - DELETE RECORD CLASS FROM ATTRIBUTE NAME
DELACAL
DELYCKA
           - DELETE A RECORD FROM AC KEYWORD
DELACMM
           - DELETE RECORD CLASS FROM ATTRIBUTE NAME WHERE
                  AC NO
DELASM
           - DELETE FROM ATTRIBUTE USE CLASS MAPPING
           - DELETE A RECORD FROM AUC ST MAPPING ENITY
DELASM1
           - DELETE A RECORD FROM AUC ST MAPPING ENITY
DELASM2
           - DELETE A RECORD FROM ATTRIBUTE USE CL
DELAUCL
DELCMPR
           - DELETE A RECORD FROM COMPLETE RELATION
           - DELETE A RECORD FROM COMPLETE RELATION
DELCPRC
DELDAA1
           - DELETE A RECORD FROM DB AREA ASSIGNMENT ENITY
           - DELETE A RECORD FROM DB_AREA_ASSIGNMENT ENITY
DELDAA2
DELDBA1
           - DELETE A RECORD FROM DATA BASE AREA ENITY
DELDBS 1
           - DELETE A RECORD FROM DATA BASE ENITY
DELDFL1
           - DELETE A RECORD FROM DATA FIELD ENITY
DELDFL2
           - CONTROLS THE DELETING OF DATA FIELDS
DELDFL3
           - DELETE A RECORD FROM DATA FIELD ENITY
           - DELETE FROM DATA ITEM WHERE
DELDIV
           - DELETE RECORD CLASS FROM DOMAIN CLASS
DELDOM
DELDSL1
           - DELETE A RECORD FROM DF SET LINKAGE ENITY
           - DELETE A RECORD FROM DF SET_LINKAGE ENITY
DELDSL2
DELDSL3
           - DELETE A RECORD FROM DF SET LINKAGE ENITY
           - DELETE RECORD CLASS FROM USER DEF DATA TYPE
           - DELETE RECORD CLASS FROM USER DEF DATA-TYPE
DELDTD
           - DELETE THE RECORD FROM ENTITY CLASS
DELEC
           - DELETE RECORD CLASS FROM ENTITY NAME
DELECAL
DELECKW
           - DELETE A RECORD FROM EC KEYWORD
DELECNM
           - DELETE THE RECORD FROM ENTITY NAME
DELIASM
           - DELETE RECORD CLASS FROM AUC ST MAPPING
DELIAUC
          - DELETE A REORD FROM INHERITED ATT USE
DELIAUK
DELIPDF
          - DELETE A RECORD FROM INHERITED ATT USE ENITY
          - DELETE RECORD CLASS FROM PROJECT DATA FIELD
DELIRCS
          - DELETE RECORD CLASS FROM RC BASED REC SET
DELISSI
           - DELETE A RECORD FROM IMS SEGMENT SIZE ENITY
DELISS2
           - DELETE A RECORD FROM IMS SEGMENT SIZE ENITY
           - DELETE A RECORD FROM KEY CLASS
DELKC
DELKCM
           - DELETE A RECORD FROM KEY CLASS MEMBER
DELKCMT
           - DELETE A RECORD FROM KEY_CLASS_MEMBER
           - DELETE A RECORD FROM AC KEYWORD
DELKA
DELKWAC
           - DELETE A RECORD FROM AC KEYWORD
DELKVEC
DELKVEC
          - DELETE A RECORD FROM EC KEYWORD
          - DELETE A RECORD FROM RC KEYWORD
          - DELETE MIGRATING KEY CLASS
           - DELETE A RECORD FROM MODEL CLASS ENITY
DELMOD
DELMTKC
           - DELETE EMPTY KEY CLASSES GIVEN THE MODEL NUMBER
```

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- DELETE A RECORD PROM OWNED ATTRIBUTE ENITY
DELOACE
DELOVAC
           - DELETE A RECORD PROM OWNED ATTRIBUTE
DELPCE
           - DELETE A RECORD FROM PSB PCB ENITY
DELPDFT
           - DELETE A RECORD FROM PROJECT DATA FIELD ENITY
           - DELETE RECORD CLASS FROM PROJECT_DATA_ITEM
DELPDI
DELRBR1
           - DELETE A RECORD FROM RC_BASED_REC_SET_ENITY
           - DELETE A RECORD FROM RC BASED REC SET ENITY
DELRBR2
DELRBR3
           - DELETE A RECORD FROM RC BASED REC SET ENITY
           - DELETE A RECORD FROM RELATION CLASS
           - DELETE A RECORD FROM RC KEYWORD
DELRCKY
DELRCST
           - DELETE RECORD CLASS FROM RC BASED REC SET
DELREUS
DELRKM1
           - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
DELRKM2
           - DELETE A RECORD FROM RECORD KEY MEMBER ENITY
           - DELETE A RECORD FROM RECORD_KEY_MEMBER ENITY
DELRKM3
DELRKY1
           - DELETE A RECORD FROM RECORD KEY ENITY
DELRKY2
           - DELETE A RECORD FROM RECORD KEY ENITY
DELRST2
           - DELETE A RECORD FROM RECORD SET ENTITY
DELRST3
           - DELETE A RECORD FROM RECORD SET ENITY
DELRTY2
DELSDF1
           - DELETE A RECORD FROM RECORD TYPE ENITY
           - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
DELSDF2
           - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
           - DELETE A RECORD FROM SEGMENT DATA FIELD ENITY
DELSDF3
           - DELETE RECORD CLASS FROM SEC
DELSEC
           - DELETE RECORD CLASS FROM SEC_RC COMPONENT
DELSECR
DELSN1
           - DELETE A RECORD FROM SCHEMA WAMES ENITY
DELSTM1
           - DELETE A RECORD FROM SET TYPE MEMBER ENITY
           - DELETE A RECORD FROM SET TYPE MEMBER ENTITY
- DELETE A RECORD FROM SET TYPE MEMBER ENITY
DELSTM2
DELSTM3
DELTEXT
           - DELETE A RECORD FROM DESC TEXT ENITY
DELTXT
           - DELETE DESCRIPTION TEXT GIVEN THE OBJECT TYPE,
DEPATT
           - SELECT ALL THE ATTRIBUTES IN THE
           - SELECT ALL THE DEPENDANT ENTITY CLASSES
DEPENT
DEPREL
           - FOR EACH LEVEL OF RELATIONS IN STRUCTURE
                   GENERATE
DLDSL2
           - DELETE A RECORD FROM DF_SET_LINKAGE ENTITY
DLMIGRC
           - DELETE HIGRATING KEY CLASS
DPKCLST
           - CREATE AN KEY_CLASS_LIST TABLE CONTAINING ALL
                   THE ENTITY
DRPDF
           - DELETE A RECORD FROM DATA_FIELD ENITY
GETNXNO
INSAC
           - INSERT A RECORD INTO ATTRIBUTE CLASS
INSACNM
           - INSERT A RECORD INTO ATTRIBUTE NAME
INSAREA
           - INSERT A RECORD INTO THE DATA BASE AREA ENTITY.
                    IF
INSAUC
           - INSERT A RECORD INTO ATTRIBUTE USE CL
INSAUCS
           - INSERT A RECORD INTO AUC ST MAPPING
```

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INSCRC
           - INSERT A RECORD INTO COMPLETE RELATION
           - INSERT A RECORD INTO THE DE AREA ASSIGNMENT
                   ENTITY. IF
IMSDB
           - INSERT A RECORD INTO THE DATA BASE ENTITY.
           - INSERT A RECORD INTO THE DATA FIELD ENTITY.
INSDFLD
           - INSERT A RECORD INTO DATA ITEM
IMSDI
           - INSERT A RECORD INTO DOMAIN CLASS
INSDOM
           - INSERT A RECORD INTO THE DF SET LINKAGE ENTITY.
INSDSL
                    IF
           - INSERT A RECORD INTO USER DEF DATA TYPE
INSDT
           - INSERT A RECORD INTO ENTITY_CLASS
INSEC
INSECHM
           - INSERT A RECORD INTO ENTITY NAME
           - INSERT A RECORD INTO INHERITED ATT USE
INSIAUC
           - INSERT A RECORD INTO THE INS SEGMENT SIZE
INSISS
                   ENTITY. IF
INSKC
           - INSERT A RECORD INTO KEY CLASS
           - INSERT A RECORD INTO KEY CLASS MEMBER
INSKCH
           - INSERT A RECORD INTO KEYWORD
insky
           - INSERT A RECORD INTO AC KEYWORD
INSKWAC
           - INSERT A RECORD INTO EC_KEYWORD
INSKVEC
INSKWRC
           - INSERT A RECORD INTO RC KEYWORD
           - INSERT A RECORD INTO MODEL CLASS
INSMOD
           - INSERT A RECORD INTO OWNED ATTRIBUTE
INSOAC
           - INSERT A RECORD INTO THE PSB PCB ENTITY.
INSPCB
           - INSERT A RECORD INTO PROJECT_DATA_FIELD
INSPDF
           - INSERT A RECORD INTO PROJECT DATA ITEM
INSPDI
           - INSERT A RECORD INTO THE PSB ENTITY.
INSPSB
           - INSERT A RECORD INTO THE DB PASSWORD. IF
INSPARD
                   SUCCESSFUL.
           - INSERT A RECORD INTO RELATION CLASS
INSRC
           - INSERT A RECORD INTO RC_BASED REC_SET
           - INSERT A RECORD INTO REUSABLE NUMBER
INSREUS
           - INSERT A RECORD INTO THE RECORD KEY ENTITY.
INSRKEY
           - INSERT A RECORD INTO THE RECORD KEY MEMBER
INSRKM
                   ENTITY. IF
INSRSET
           - INSERT A RECORD INTO THE RECORD SET ENTITY.
           - INSERT A RECORD INTO THE RECORD TYPE ENTITY.
INSRTYP
           - INSERT A RECORD INTO THE SCHEMA NAMES ENTITY.
INSSCH
                   IF
INSSDFL
           - INSERT A RECORD INTO THE SEGMENT DATA FIELD
                   ENTITY. IF
INSSEC
           - INSERT A RECORD INTO SEC
           - INSERT A RECORD INTO SEC RC COMPONENT
INSSECR
INSSTM
           - INSERT A RECORD INTO THE SET TYPE MEMBER
                   ENTITY. IF
           - CONTROL THE LOGIC FOR PROCESSING THE REMAINING
MRGMOD2
                   MODEL 2
```

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- SELECT ALL THE TOP WODE (LEVEL 1) INDEPENDENT
MRGMODE
                   ENTITY'S
MRGET
RDDESC
           - STORE DESCRIPTION ON THE CDM
SELIAUC
           - SELECTS ALL THE INHERITED TAG NAMES
           - CHECK FOR LOOPS FROM THE ENTITY GIVEN DOWN THE
TLOOPCK
                   HIERARCHY
TOPNODE
           - SELECT ALL THE LEVEL 1 TOP MODE INDEPENDENT
                   ENTITY
UPDAC
           - UPDATE ATTRIBUTE CLASS SET DOMAIN NO = : 1
           - UPDATE HODEL_CLASS SET AC_NAME_TYPE - : 1
UPDACAL
           - UPDATE ATTRIBUTE NAME SET AC NAME - : 1
UPDACHM
UPDECAL
           - UPDATE MODEL CLASS SET EC MAÑE TYPE = : 1
UPDECNM
           - UPDATE MODEL CLASS SET ENTITY NAME = : 1
UPDIND
           - UPDATE USER DEF DATA TYPE SET DATA TYPE IND - :
UPDMNAM
           - UPDATE MODEL CLASS SET MODEL NAME = : 1
UPDMOD
           - UPDATE MODEL CLASS SET MODEL STATUS = : 1
UPDNXNO
UPDRCNM
           - UPDATE RELATION CLASS SET RC NAME - : 1
           - UPDATE DOMAIN SET DOMAIN NAME = : 1
UPDTDOM
UPDTDT
           - UPDATE USER DEF_DATA TYPE SET TYPE ID - : 1
           - UPDATE KEYWORD SET KEYWORD - : 1
UPDTKW
UPDTRC
           - UPDATE RELATION CLASS SET NO IND ENT = : 1,
           - UPDATE VIEW SET SEC ID = : 1
DEDAIEA
           - SELECT A RECORD FROM DESC TEXT ENITY
WRTDESC
           - SELECT A RECORD FROM DESC TEXT ENITY
WRTDSC4
```

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#### USED IN MAIN PROGRAM(S):

DELDFL1 - DELETE A RECORD FROM DATA FIELD ENITY
NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

PS 620141100 1 November 1985

#### NDDL COMMAND PROCESSOR Module Documentation

NAME:

**CPFCOR** 

PURPOSE:

ACCESS A TOKEN IN A CORRESPONDING NAMED

LIST

LANGUAGE:

C

MODULE TYPE:

**FUNCTION** 

FUNCTION TYPE:

INT ()

SOURCE FILE: SOURCE FILE TYPE: CPF .C

HOST:

SUBSYSTEM:

CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYMOPSIS

C -- CPFCOR(LST1, LST2, STRING, RC)

COBOL

-- CALL "CPFCOR" USING

LIST1,

LIST2,

TOKEN,

RC.

FORTRAN --

CALL CPFCOR (LIST1, LIST2, TOKEN, RC)

IMPUT:

LST1 --

AN INTEGER IDENTIFYING THE THE CORRESPONDING LIST

LST2 -- THE LIST FROM WHICH THE TOKEN IS DESIRED.

**OUTPUT:** 

STRING --

THE CHARACTER STRING TOKEN FROM LIST2,

BLANK PADDED TO ITS FULL LENGTH.

RC

AN INTEGER RETURN CODE, A VALUE OF -1

PS 620141100 1 November 1985

## INDICATES A BAD ROW INDEX OR LENGTH WAS FOUND.

#### DESCRIPTION

SET UP THE INDEX INTO LIST 2 BY USING THE CURRENT ENTRY INTO LIST1. BLANK OUT THE STRING OUTPUT AND COPY IN THE TOKEN FROM LIST2. FINALLY, SET UP THE ROW ACCESSED AS CURRENT FOR LIST2.

### ARGUMENTS:

LST1 = INT \*
LST2 = INT \*
STRING = CHAR \*
RC = INT \*

#### INCLUDE FILES:

LISTS - PROVIDES THE DIMENSIONS OF THE NDDL LISTS

\*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

#### ROUTINES CALLED:

STRNCPY

#### CALLED DIRECTLY BY:

BLVWLST - CREATE BUILD VIEW LISTS FOR THE CREATE VIEW COMMAND DEFFLD - PROCESSES THE FIELD INFORMATION FOR THE DEFINE RECORD COMMAND. DEFKEY - PROCESSES THE KEY INFORMATION FOR THE DEFINE RECORD COMMAND. DEFSET - CONTROLS THE PROCESSING LOGIC FOR THE DEFINE SET COMMAND. PROCDT - PROGRAM NAME ADDMAP - ADD A CS-IS MAPPING ALTSMAP - ALTER A SINGLE MAP DRPSMAP - DROP A SINGLE MAPPING

#### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR

#### NDDL COMMAND PROCESSOR Module Documentation

.C

NAME: CPFNXT

PURPOSE: ACCESS THE NEXT TOKEN IN A PARSER LIST.

LANGUAGE:

MODULE TYPE: FUNCTION FUNCTION TYPE: INT () SOURCE FILE: CPF

SOURCE FILE TYPE: HOST:

SUBSYSTEM: CDM

SUBDIRECTORY:

DOCUMENTATION GROUP: PS41100

DESCRIPTION:

SYNOPSIS

C -- CPFNXT(LST, STRING, RC)

COBOL

-- CALL "CPFNXT" USING

LIST-NO,

TOKEN,

RC.

**FORTRAN** 

CALL CPFNXT( LIST, TOKEN, RC)

INPUT:

LST - AN INTEGER IDENTIFYING THE LIST TO BE USED TO ACCESS THE NEXT TOKEN.

**OUTPUT:** 

STRING -

THE TOKEN ACCESSED FROM THE GIVEN LIST, BLANK PADDED UP TO ITS FULL DEFINED LENGTH.

RC

THE RETURN CODE WHICH SIGNALS THE END OF LIST ENCOUNTERED (-1)

#### DESCRIPTION

USING THE CURRENT LAST ROW RETURNED FROM THE LIST,

ADD 1 AND COMPARE TO THE NUMBER OF ITEMS ON THE

LIST. IF THERE IS ANOTHER, BLANK OUT THE

OUTPUT PARAMETER AND COPY IN THE TOKEN.

# ARGUMENTS:

LST = INT \*
STRING = CHAR \*
RC = INT \*

#### INCLUDE FILES:

LISTS - PROVIDES THE DIMENSIONS OF THE NDDL LISTS

NDDL - \*\*\*\* PURPOSE NOT FOUND BY STRIPPER \*\*\*\*

#### ROUTINES CALLED:

STRNCPY

#### CALLED DIRECTLY BY:

ADDATT - ASSOCIATES EXISTING ATT WITH ENTITY IN CREAT ENTITY COMMAND ADDKC - CONTROLS PROCESS FOR KEY CLASS CLAUSE FOR CREATE/ALTER ENTITY ADDKW - ADDS KEYWORDS FOR COMMANDS USING "ADD KEYWORD" (OPTIONAL) ALTALI - CONTROLS ALTER ALIAS PROCESSING (ALIAS TO PRIM OR VICE VERSA) ALTCARD - PROCESS CARDINALITY FO USER SIZULIAL - CONTROLS PROCESSING LOGIC FOR THE ALTER - PROCESS CARDINALITY FO USER SPECIFIED RELATION RELATION COMMAND BLVVLST - CREATE BUILD VIEW LISTS FOR THE CREATE VIEW COMMAND

| CHKCARD                              | - OBTAINS THE USER-SPECIFIED CARDINALTY (IF ANY) FOR THE RELATION.   |
|--------------------------------------|----------------------------------------------------------------------|
| CHBENT                               | - CONROLS THE PROCESSING LOGIC FOR THE COMBINE ENTITY COMMAND.       |
| CMPHOD                               | - CONTROLS THE PROCESSING LOGIC TO COMPARE TWO MODELS.               |
| COPATT                               | - CONTROLS THE PROCESSING LOGIC FOR COPYING AN ATTRIBUTE.            |
| COPENT                               | - CONTROLS THE PROCESSING LOGIC FOR THE COPY ENTITY COMMAND.         |
| CPYMOD                               | - CONTROLS THE PROCESSING LOGIC FOR THE COPY MODEL COMMAND.          |
| CRTALI                               | - CREATES ALIASES FOR AN ENTITY OR ATTRIBUTE.                        |
| CRTREL                               | - CONTROLS THE LOGIC FOR VALIDATING AND CREATING                     |
| <b>U</b> == <b>U</b> == <b>U</b> === | A NEW RELATION CLA                                                   |
| DEFAREA                              | - PROCESSES THE AREA INFORMATION IF THE DBMS IS IDS-II, IDMS AND VA  |
| DEFCODL                              | - PROCESSES THE DBMS TYPES: VAX-11, IDMS, IDS-II.                    |
| DEFFLD                               | - PROCESSES THE FIELD INFORMATION FOR THE DEFINE RECORD COMMAND.     |
| DEFIMS                               | - PROCESSES THE DBMS TYPE: IMS.                                      |
| DEFKEY                               | - PROCESSES THE KEY INFORMATION FOR THE DEFINE RECORD COMMAND.       |
| DEFSET                               | - CONTROLS THE PROCESSING LOGIC FOR THE DEFINE SET COMMAND.          |
| DEFTOT                               | - PROCESSES THE DBMS TYPE: TOTAL.                                    |
| DRPAC                                | - DELETE OWNED ATTRIBUTES ASSOCIATED WITH ENTITY                     |
| DRPATT                               | - CONTROLS THE DROPPING OF USER SPECIFIED                            |
|                                      | ATTRIBUTE CLASSES FROM TH                                            |
| DRPDOM                               | - PROGRAM NAME                                                       |
| DRPENT                               | - CONTROL THE PROCESSING LOGIC FOR DELETING ENTITIES.                |
| DRPFLD                               | - CONTROLS THE PROCESSING LOGIC FOR DROPPING A DATA FIELD.           |
| DRPKC                                | - WINTROLS THE PROCESSING LOGIC FOR THE "DROP KEY CLASS".            |
| DRPKW                                | - DROP A KEYWORD ASSOCIATION FROM EITHER AN ATTRIBUTE, ENTITY OR REL |
| DRPKWC                               | - OBTAIN THE USED IDENTIFIED KEYWORD, THEN DROP THEIR ASSOCIATIONS.  |
| DRPREL                               | - CONTROLS THE PROCESSING LOGIC FOR THE "DROP RELATION" COMMAND.     |
| DRPVIEW                              | - DROP THE VIEW.                                                     |
| GETDBST                              |                                                                      |
| MKRNLST                              | DATABASE                                                             |
| UVVVI)                               | MIGRATESSETCLAUSE                                                    |

#### PS 620141100 1 Movember 1985

HRGHOD - MERGE TWO IDEF MODELS INTO ONE

PROCDT - PROGRAM NAME

RCCHEK - CHECK IF A RELATION CLASS EXISTS FOR A GIVEN

MODEL

RCCHEK1 - CHECK IF A RELATION CLASS EXISTS FOR A GIVEN

MODEL

RENAME - UPDATE EXISTING OBJECT NAME WITH NEW OBJECT NAME

ADDMAP - ADD A CS-IS MAPPING

ALTMAP - ALTER MAP COMMAND PROCESSOR

ALTSMAP - ALTER A SINGLE MAP

CRTMAP - CREATE MAP COMMAND PROCESSOR

DRPHAP - COMMAND PROCESSOR FOR THE DROP MAP COMMAND

DRPSMAP - DROP A SINGLE MAPPING

VEROBJ - VERIFY THAT THE OBJECT EXISTS.

#### USED IN MAIN PROGRAM(S):

NDDL/MAIN - MAIN PROGRAM FOR THE NDDL COMMAND PROCESSOR